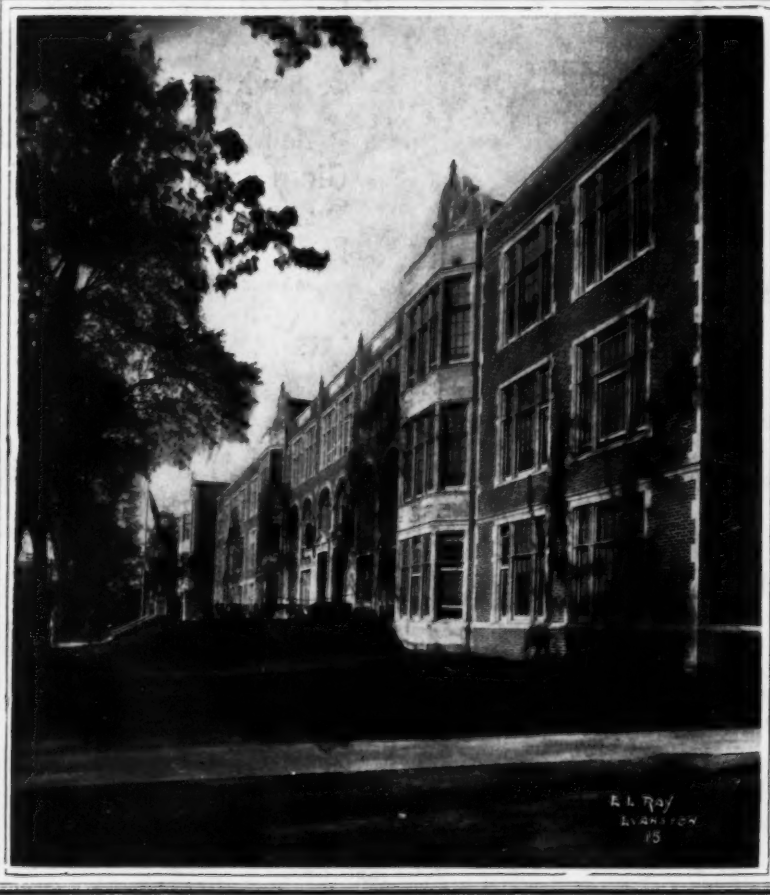
The NATION'S SCHOOLS

DEVOTED TO THE APPLICATION OF RESEARCH TO THE BUILDING, EQUIPMENT AND ADMINISTRATION OF SCHOOLS



VOL. V
No. 4

APRIL
1930

Published by THE NATION'S SCHOOLS PUBLISHING CO., *Chicago.*

An Important Contribution to School Sanitation

• • •

THE vast research facilities of the Standard Oil Company (Indiana) are today available to schools in maintaining the highest standards of efficient and economical sanitation. Semdac Liquid Gloss, a product ideally suited to school use, brings a new order of cleanliness and cheer which help to promote all the advantages of dust-free surfaces and shining, bright appearance.

Semdac Liquid Gloss offers an easy way of collecting dust and dirt from floors, woodwork and furnishings without marring, deadening or scattering dust particles. It is superior to the old soap and water method of removing dirt and stains from finished surfaces because it never dulls the finish. Instead, it restores original brightness while removing every bit of grime.

Applied with a cloth, Semdac Liquid Gloss removes unsightly fingerprints from enamel and polished surface, and never leaves an appearance of oiliness. It is a product with universal application in the school. And it can be purchased economically in barrels, half barrels, five gallon, gallon, half gallon, quart and pint cans.

SEMDAC FURNITURE DRESSING

This special product is specified where a more brilliant and durable lustre is wanted with the least amount of polishing. Merely applying it removes the dirt—the dressing does the work. Semdac Furniture Dressing will put a beautiful polish on all fine woodwork—varnished, lacquered and enameled. Sold in pint and quart bottles.

STANDARD OIL COMPANY
(Indiana)

910 S. Michigan Ave., Chicago, U. S. A.

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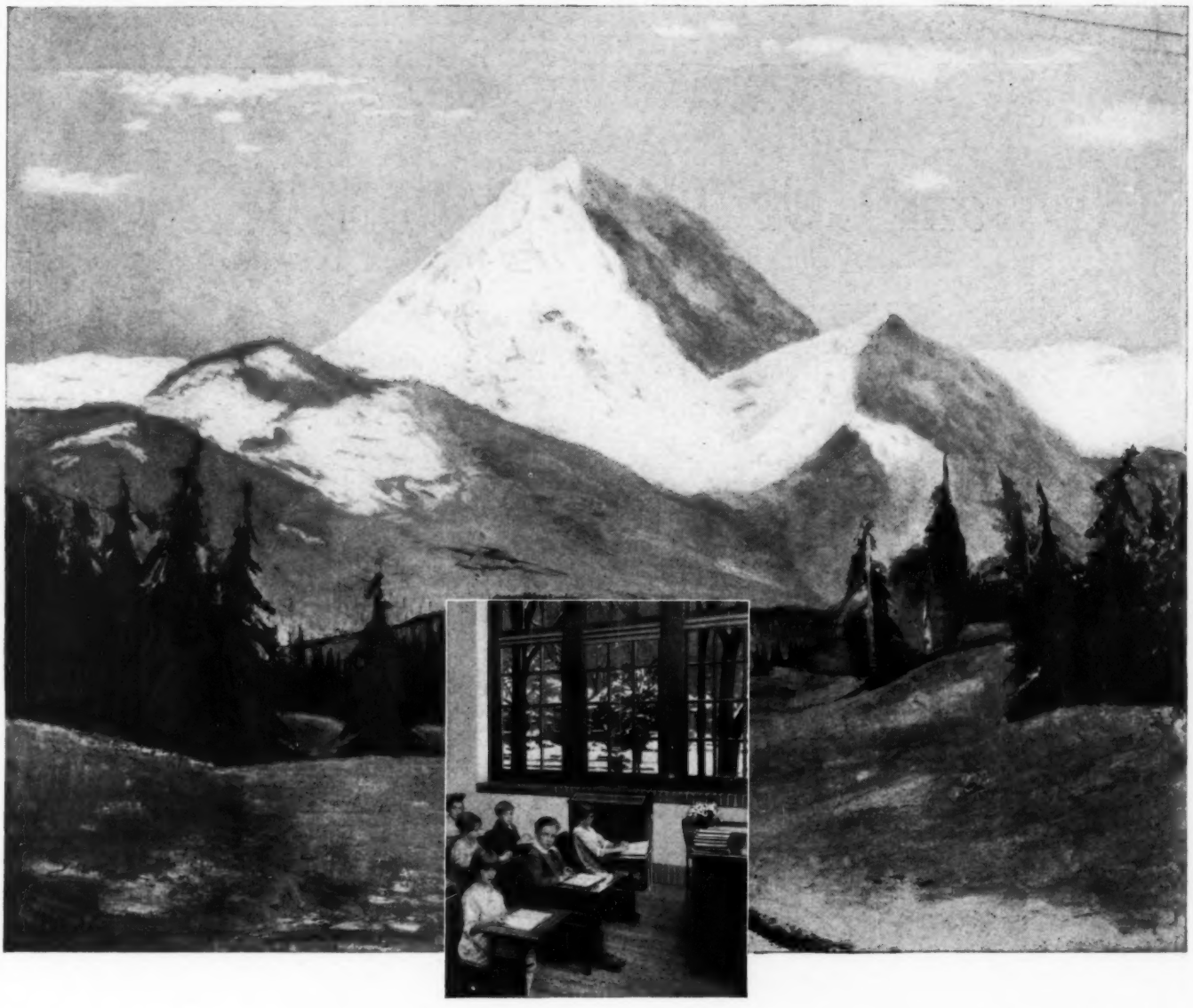
SEMDAC

LIQUID GLOSS — FURNITURE DRESSING



The UNIVENT is the connecting link...

between outdoors and indoors

Think of a school room flooded with health giving invigorating mountain air. Can you think of any atmosphere more ideal for fitting the coming men and women of America to meet their future responsibilities as leaders of our nation?

We can't, of course, bring the mountains to our schools, nor our schools to the mountains, but we can give our school children in any school anywhere, the benefits of the great out of doors through Univent Ventilation.

Look at the happy, healthy children in the illustration. The photograph is of a Univent Ventilated school room taken in 1924, and from this same Illinois school, each year the Univent is producing similar specimens.

The Univent brings into the room, outdoor air, cleans it, tempers it and distributes it to each occupant of the room with gentle invigorating air motion—but without drafts.

School executives who adopt Univent Ventilation are fulfilling one of their greatest responsibilities to the children of their community. In addition they are meeting their pledge to the tax payers by investing in a ventilating system that effects great savings in operating and maintenance costs.

Consult your architect, engineer or our nearest sales office about the Univent. If you prefer, write for our illustrated book "Univent Ventilation."

THE HERMAN NELSON CORPORATION* MOLINE ILLINOIS

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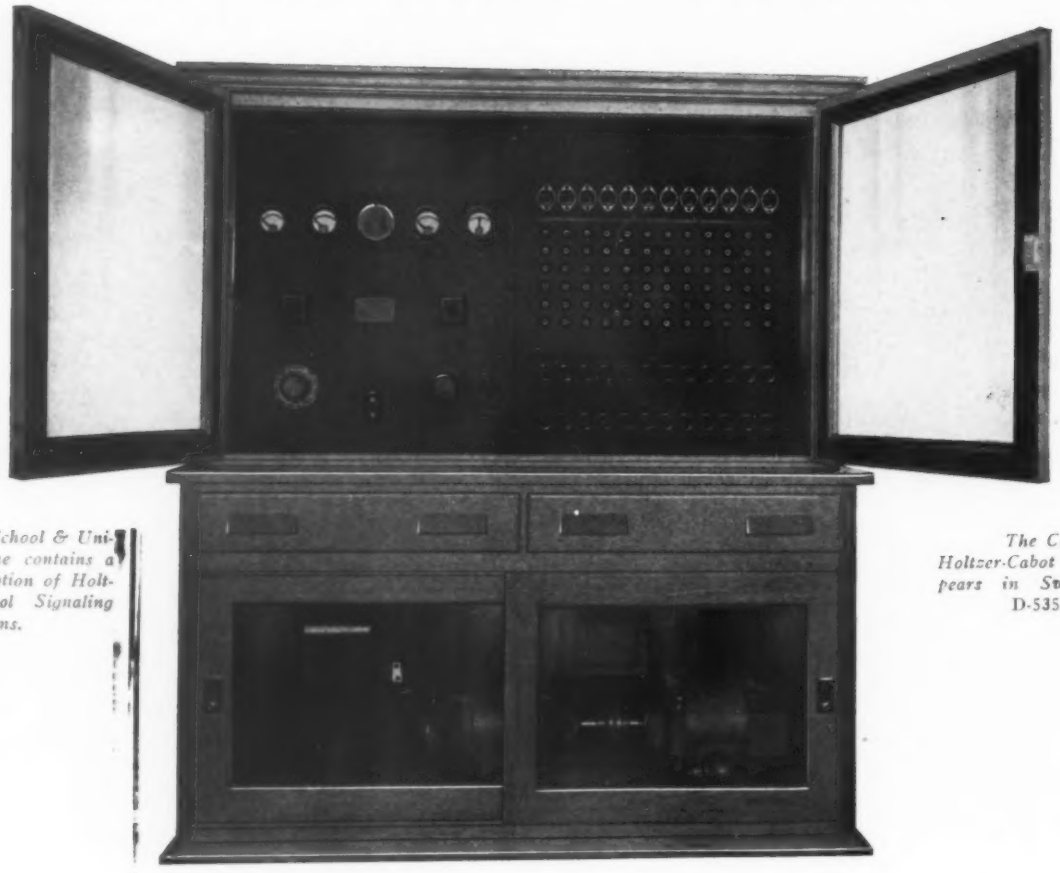
*Makers of the *Univent*, for the ventilation of schools, offices, churches and all buildings having an acute ventilating problem—the *Herman Nelson Invisible Radiator*, for residences, apartments, hotels, offices and monumental structures—the *Herman Nelson hiJet Heater*, for economical distribution of heat in factories, mills, garages, warehouses, and smaller buildings.

PIONEER MANUFACTURER OF SCHOOL SIGNALLING SYSTEMS

STANDARD VOLTAGE DISTRIBUTION and CONTROL PANEL . . .



The American School & University Catalogue contains a complete description of Holtzer-Cabot School Signaling Systems.

The Complete Holtzer-Cabot Catalogue appears in Sweet's — Pages D-5353-5385.

. . . indispensable to Science Laboratories

Since the Holtzer-Cabot Electric Company originated voltage distribution and control equipment over twenty years ago, leading educational institutions the country over have adopted this equipment as standard for their science laboratories.

Sales Offices:
Boston
Chicago
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Science Instructors will find this equipment of great convenience and time-saving value. In addition to the convenience and absolute control of all electrical current supply which this apparatus gives the instructor, the equipment itself is of considerable educational value. All apparatus is of most modern design and of the rugged construction so necessary to meet the hard service of students' usage.

A descriptive brochure will be sent on request

▼ ▼ ▼

The Holtzer-Cabot Electric Co.

BOSTON CHICAGO

CONTENTS

Volume V April, 1930 Number 4

(Continued on page 4)

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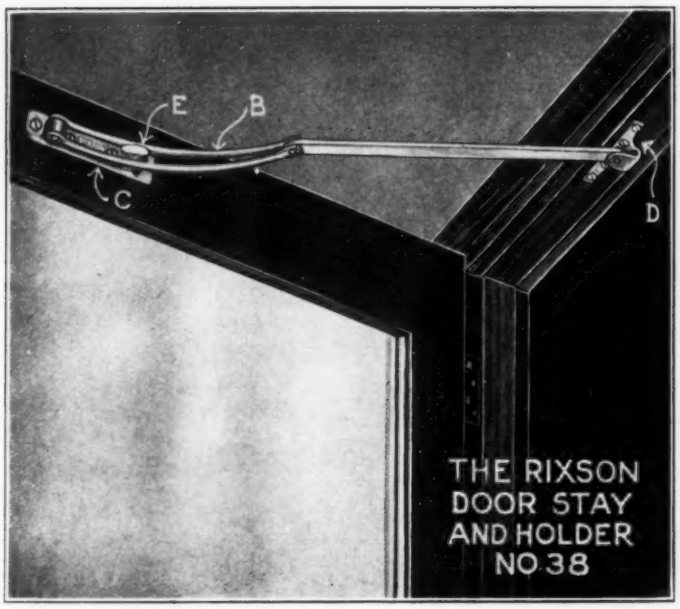


Architects Have Learned They Can Stake Their Reputations on Rixson Hardware.

Ask your architect to explain the details as presented in Sweet's Catalog. Or, write us.

THE GENTLE DOOR STAY

Door stays. Door stops. The difference between hinge damage and hinge protection is evident even in these words. Chains, floor fixtures, brick or stone reveals—all of these **stop** doors flung back with schoolboy recklessness. Stop them abruptly, rudely and with a wrench which utlimately wrecks the finest hinge. In contrast consider the door that is gently snubbed against a springy shock-absorbing action.

RIXSON
No. 38 and 39
Door Stay and Holder

Curved spring arms take up the shock of the most violent opening in this simple device installed close up under the head jamb, entirely out of the way and practically out of sight.

In school use it is a further remarkable convenience that this gentle door stay is also a strong and capable door holder. In the No. 38 a turn of the thumb piece provides the hold-open feature. No. 39 holds open automatically when the door is pushed all the way back.

THE OSCAR C. RIXSON COMPANY
4450 Carroll Avenue Chicago, Ill.
***New York Office:* 101 Park Ave., N. Y. C.**
Philadelphia Atlanta New Orleans Los Angeles Winnipeg

RIXSON

Improved Mechanisms in Builders' Hardware

Index of Advertisers

Keep Dr. Jekyll *and* Mr. Hyde out of the blackboard picture!

IS the "sample" of blackboard you examine Dr. Jekyll . . . and the finally delivered product Mr. Hyde? Are you sold through a sample that merits your consideration only to find that the finally delivered product somehow has changed?

Every sample of Sterling Lifelong Blackboard is a *stock* sample . . . and behind every foot a pledge of satisfaction made by this reliable 47 year old concern.

Sterling is a better blackboard . . . a quality product scientifically produced to perform exactly as the educator expects and desires. Investigate its advantages over *any other blackboard.* You should know all the facts about Sterling Lifelong Blackboard—the features that make it a *better* blackboard for your schools. Address Department S421 for detailed information. We will send you a sample of Sterling, too.

Sterling Lifelong Blackboard

WEBER COSTELLO COMPANY

Chicago Heights, Illinois

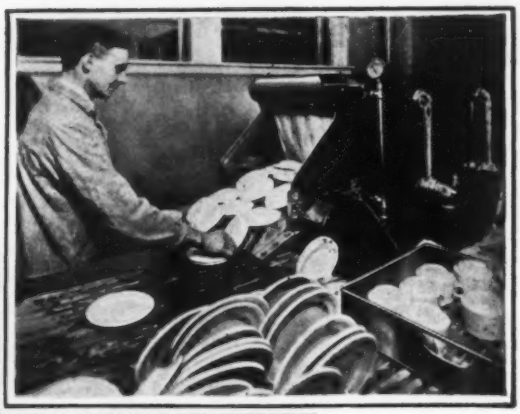
MAKERS OF
Sterling Lifelong Blackboard—Globes

TIME TESTED W.C. SCHOOL SUPPLIES

Old Reliable Hyloplate—Erasers Maps—Crayon

55 Distributor Warehouses Assure You Immediate Service

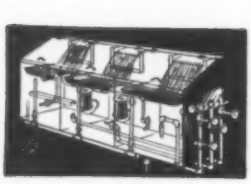
Clean dishes.... *for* 5400 lunches *per Day*



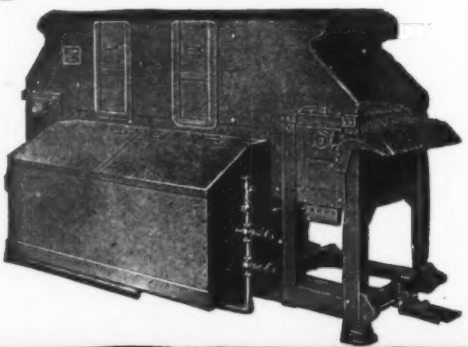
The De Witt Clinton – Five Million Dollar – *High School New York City*

IN this largest of all High Schools for boys, an average of fifty-four hundred students per day are served in three periods between 10:45 and 1.30 each day—more than 1800 per hour, cafeteria service. One model "C-2" Colt Autosan easily keeps ahead of these clean dish requirements. Without the Colt Autosan, school feeding would present a colossal dishwashing problem — in space requirements, labor expense and turnover, equipment and dish-breakage expense. At the very best, dishes would not be nearly as clean nor so quickly returned to service. The continuous, uninterrupted wash—rinse—sterilize of direct-action sprays on the Colt straightaway conveyor is the secret of this tremendous clean dish output by the

COLT AUTOSAN
Dishwashing Machine



Outside tanks, permitting free, quick access to scrap trays, filter barrel and wash water, is another exclusive Colt Autosan feature. There's a Colt Autosan to fit every space and need—from 100 to 2000 or more persons per meal—from $615 up. May we send you complete specification literature? Ask for Packet "M."



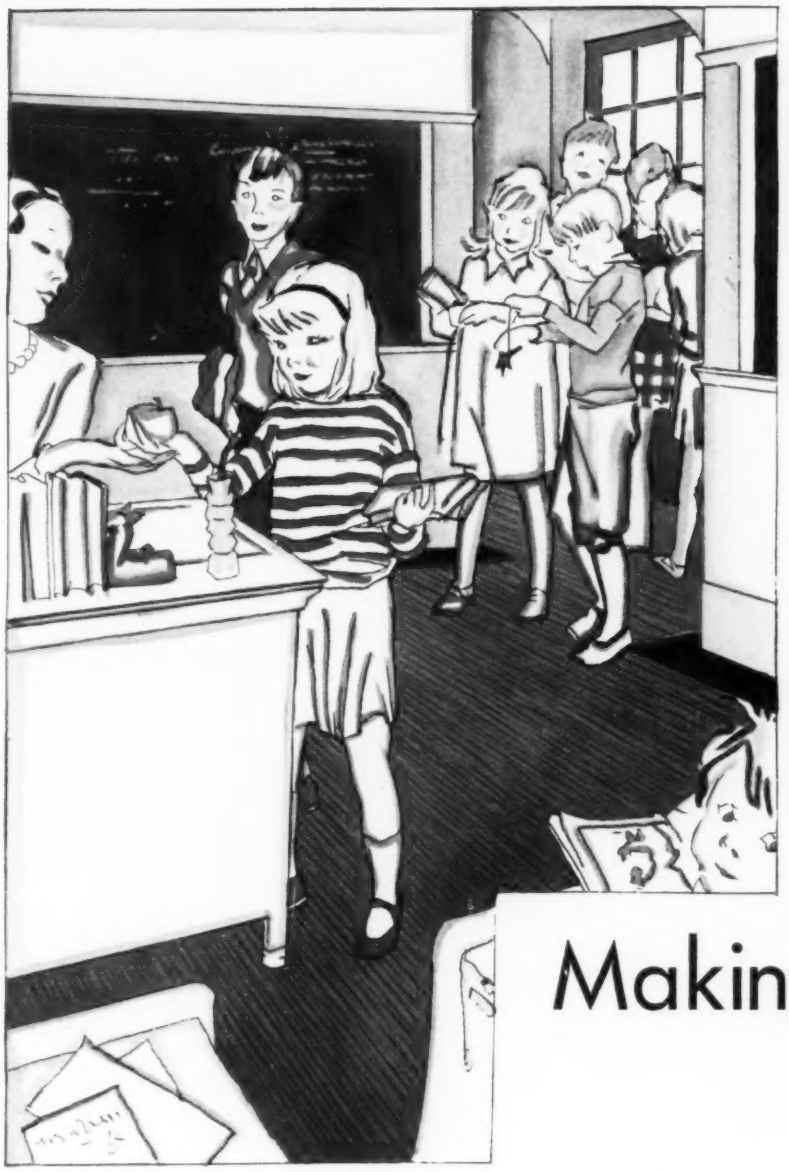
Model C-2 Conveyor Type Price in Copper $1950 F.O.B. Factory

64-58

A COLT PRODUCT

COLT'S PATENT FIRE ARMS MFG. CO.
AUTOSAN MACHINE DIVISION
HARTFORD, CONN., U.S.A.

MAKERS OF FIRE ARMS, ELECTRICAL EQUIPMENT, MOULDED PLASTIC PRODUCTS, DISHWASHING AND METAL-CLEANING MACHINES.



Making School Days Happier!

We have shortened hours. We have done away with corporal punishment. We have devised methods of making school work easier . . . more like play. And we are constantly making changes in the physical appointments of our schools, that they may be more comfortable, cheerful and livable.

Specialists in school architecture, decoration and education, all agree that colorful surroundings have a definite effect on the mental comfort and cheerfulness of pupils—and have discovered that one of the most desirable and practical ways to bring color into the schoolroom is to install resilient *Sealex* floors.

Sealex floors are as far removed from the hard, drab-looking school floors of yesterday as the fountain pen from the stylus. They are not only colorful—they are quiet, comfortable and sani-

(*See next page*)

For floors in kindergartens, gymnasiums, etc., special decorative or utilitarian designs may be inlaid in contrasting colors—thus providing permanent markers for games, class formations, etc.

(Continued from preceding page)

tary, as well! This last, because *Sealex* materials are spot-proof and stain-proof—easy to clean. Spilled things don't matter! Since neither wear nor every-day accidents will dull or mar their beauty, *Sealex* materials justify the use of pleasing colors underfoot.

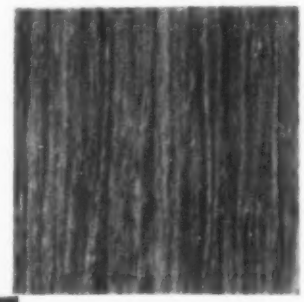
Sealex floors may be as simple and inexpensive, or as richly decorative, as the location warrants.

For ordinary class and study rooms, simply designed floors, such as *Sealex* Battleship Linoleum or *Sealex* Jaspé Linoleum, are indicated, and the soft harmonious tones are particularly pleasing and restful.

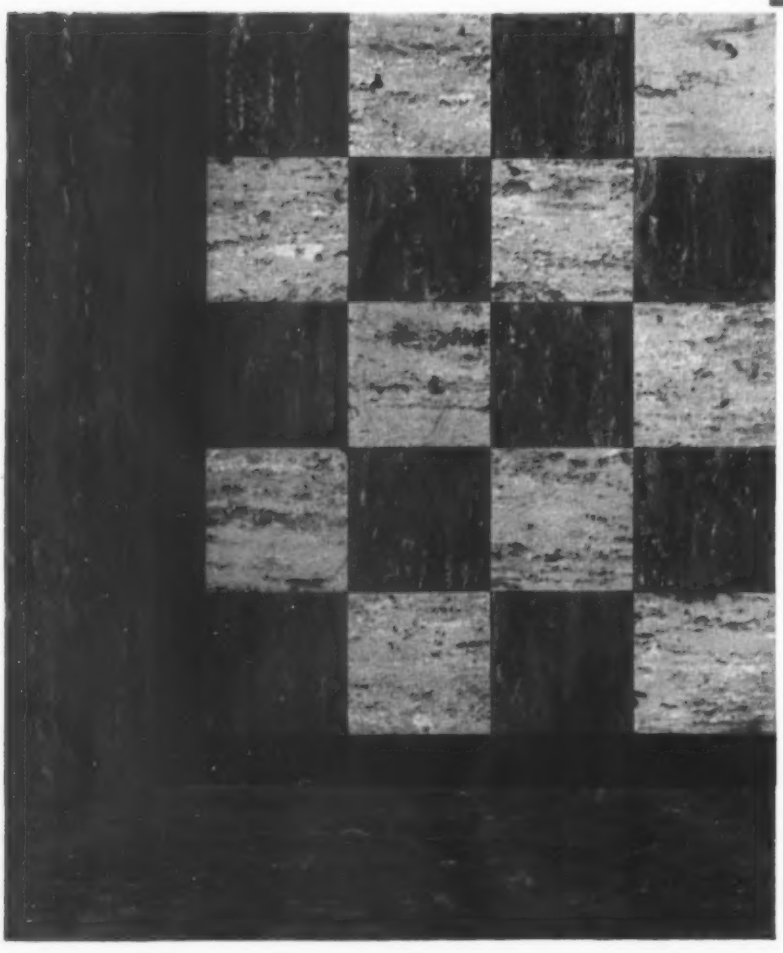
But for such locations as the entrance hall, dining room, library, private office, etc., nothing could be more appropriate

New Jaspé Effects

The new pastel shades in *Sealex* Jaspé Linoleum will be welcomed by school executives who realize the possibilities of this subdued, yet decorative, type of floor.



Here are illustrated two restful colors of *Sealex* Jaspé Linoleum. Above: "Rose-glow." At left: "Lake-blue."



than designed-to-order floors of *Sealex* Treadlite Tile—plain or marble-ized. These cork-composition tiles offer distinctive beauty. The floor-design at the left illustrates the use of two of the many tile colors available.

It is a very simple matter to have *Sealex* floors installed in any school either as part of the original equipment, or over the present floors. Let us explain our nation-wide expert installation service, as rendered through Authorized Contractors of Bonded Floors. We'll gladly confer with you, no obligation.

Write us for further information, or for our authoritative booklet, "Facts You Should Know about Resilient Floors for Schools."

CONGOLEUM-NAIRN INC.
General Office: Kearny, N. J.

BONDED FLOORS are floors of Sealex Linoleum and Sealex Treadlite Tile, backed by a Guaranty Bond issued by the U. S. Fidelity and Guaranty Company.

SEALEX LINOLEUM

(See preceding page)

Syracuse China
Fills Every School Need

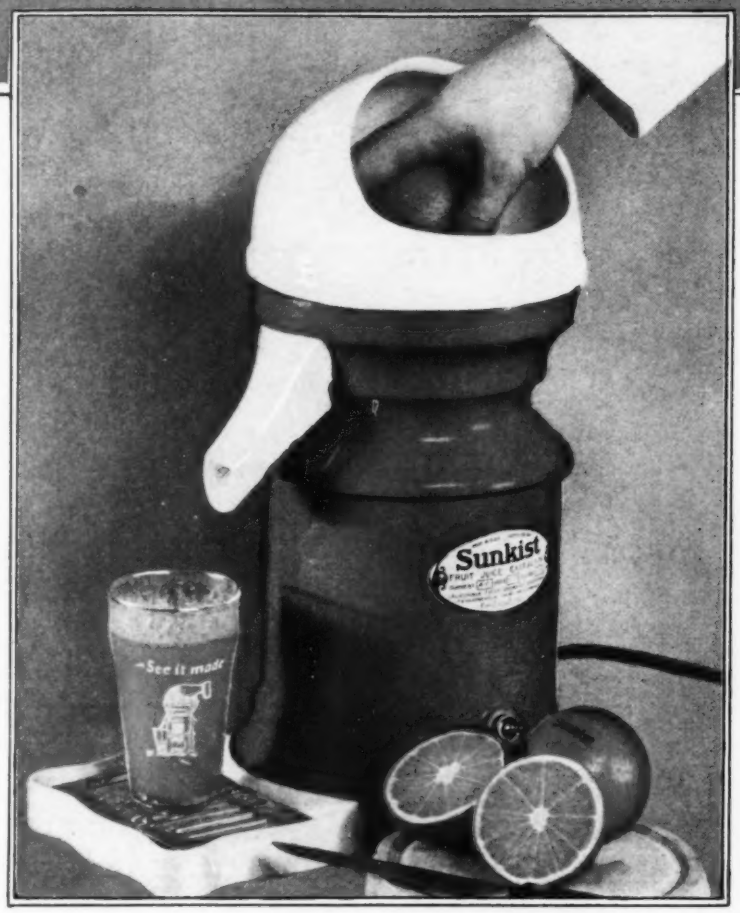
SYRACUSE CHINA creates a home-like impression which makes it particularly appropriate for schools. It is recognized by good schools to-day that meals should be served as tastefully as they are served in the home, if students are to be encouraged to eat nourishingly for physical growth.

Because Syracuse China is home-like in appearance and "feel"—as can readily be appreciated from the above picture of a specially designed pattern in "Old Ivory"—it has become the choice of hundreds of leading schools, hotels, hospitals and other institutions. They have standardized on it, not alone because of its beauty and wide variety of designs and colors, but because, being vitrified, its breakage is remarkably low. And since the Onondaga Pottery is the largest maker of china for institutions, even this minimum breakage can be instantly and economically replaced.

You can examine Syracuse China and obtain full information on patterns, colors and prices from nearly all institutional dealers. If you have any difficulty, write direct to the Onondaga Pottery Company, Syracuse, New York.

SYRACUSE CHINA

VASTLY IMPROVED
New De Luxe Sunkist Extractor
In Chromium Plate or Green Duco Finish



NO ADVANCE IN PRICE

These New Features

of the De Luxe Sunkist Extractor

1. ***Beautiful appearance***—In genuine green Duco or beautiful, non-tarnishing Chromium plate. New stream-line design. Housing all in one.
2. ***Easiest to clean***—No rubbing required to polish. Simply wipe with a damp cloth. Always looks new. No corners or angles to catch dirt. Only two instantly removable parts to wash. Extracting bulb and china bowl lift out—just flush with water to cleanse.
3. ***Guaranteed***—Absolutely warranted against mechanical defect for one year. In every way highest quality for *lifetime* service.
4. ***New conveniences***—New type switch, a flip and it is on or off. No set screws. China bowl fits without adjustment. New all-rubber, shock and moisture-proof electric cord and plug.
5. ***No increased price***—Quantity production and heavy demand keep price the same: $45 less 2% cash 10 days, f. o. b. Chicago.

3 oranges give the juice of 4—*No bitter oil from the peel*

HERE is the ultimate in fruit juice extraction ... the new De Luxe Sunkist Extractor... (*electric*) . . . announced for the first time here.

You will save its cost in a short time. By test, 3 oranges give as much juice as 4 extracted by "hand" types.

No increase in price

The new De Luxe Sunkist (*electric*) Fruit Juice Extractor is offered you at the same price as the previous model. This price is *actual cost to us.* We, the fruit growers of California, know that the Sunkist Extractor increases the use of oranges and lemons. Thus this attractive no-profit offer.

Ask your jobber's salesman about the new De Luxe Sunkist Extractor. Order this new machine now. Guaranteed against defective workmanship and material for one year. Or use the handy coupon for further particulars.

Sunkist
Fruit Juice Extractor

◆

CALIFORNIA FRUIT GROWERS EXCHANGE
(Department of Fresh Fruit Drinks)
900 North Franklin St. Chicago, Ill.

CALIFORNIA FRUIT GROWERS EXCHANGE
Department of Fresh Fruit Drinks
Div. L-04, 900 N. Franklin St., Chicago, Ill.

Without obligation, send us further information about the NEW DE LUXE MODEL Sunkist Fruit Juice Extractor.

Name.....

Address.....

City..... State.....

My Jobber is.....

Universal Heating and Ventilating Units . . . quiet in operation . . . dependable . . . reliable . . . pleasing in appearance

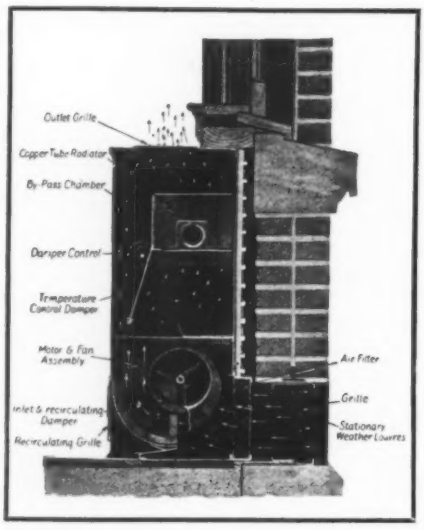
BUY *WISELY*

AND YOU'LL CHOOSE BUT ONCE

It's costly to choose wrong. It's costly to discover later that there is a better way to heat and ventilate your school building. In every sense of the word, the service you get from your heating and ventilating units, in the years to come, depends upon your choice *today*.

Hundreds of the nation's leading schools are equipped with Universal Heating and Ventilating Units. Hundreds of installations have been made in the smaller schools, too, with complete satisfaction.

Universal Units are scientifically designed and built.



They are quiet . . . sturdy . . . economical . . . dependable . . . serviceable.

Their vertical discharge of air at high velocity assures clean, wholesome air conditions *without drafts*. Air is delivered at a temperature higher than room temperature or lower, whichever way it is needed.

Specify Universal Units and you choose but once.

Phone or write any American Blower Branch Office —no obligation. There is one in every principal city.

(1002-A)

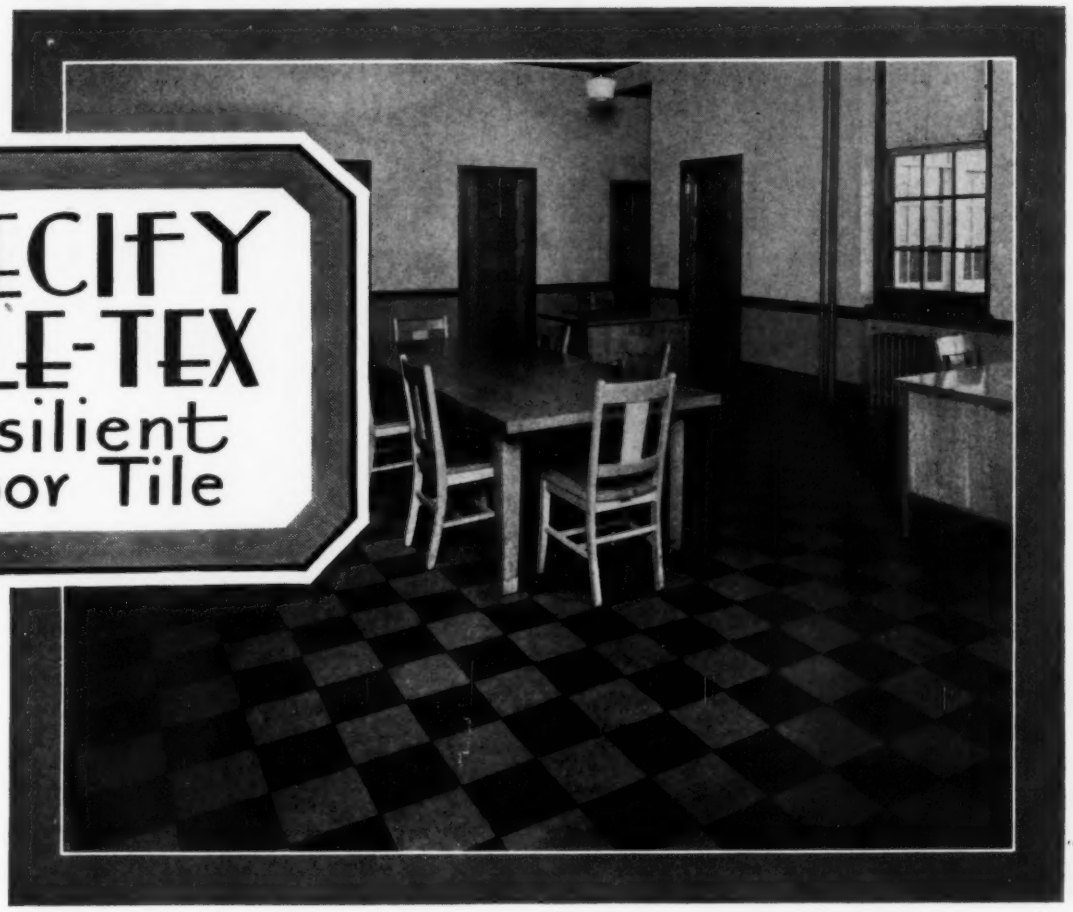
AMERICAN BLOWER CORP., DETROIT, MICH.
CANADIAN SIROCCO CO., LTD., WINDSOR, ONT.
BRANCH OFFICES IN ALL PRINCIPAL CITIES

American Blower

"Sirocco" VENTILATING, HEATING, AIR CONDITIONING, DRYING, MECHANICAL DRAFT

MANUFACTURERS OF ALL TYPES OF AIR HANDLING EQUIPMENT SINCE 1881

for Permanent Silence & Economy



SPECIFY TILE-TEX Resilient Floor Tile

A Tile-Tex floor in the Roselle High School, Roselle, N.J. Fred A Eleasser, Architect, Roselle, New Jersey

Get tomorrow's floors today! For every practical purpose, use Tile-Tex Resilient Floor Tile throughout the modern school . . . in corridors, class rooms, laboratories, auditoriums, gymnasiums, libraries, etc.

Tile-Tex has never worn out. Laid complete in one operation, it is immediately ready to silence a lifetime of severe foot traffic — becoming more polished with years of use. Resists wear, fire and dampness — no upkeep. It is stain-proof and dustless — Acid or ink blotches may be removed with a damp cloth.

Fully warranted not to crack, loosen or disintegrate, even when laid on damp concrete floors, at or below grade, that have not been waterproofed. Find out how economically you can apply this *long-life* resilient floor tile . . . *now!* Send for free booklet. Sign and mail the coupon.

[Tile-Tex Sanitary Cove Base of the same material is now available.]

Tile-Tex — *a tile floor in the price range of ordinary floor coverings.*

THE TILE-TEX COMPANY
CHICAGO HEIGHTS, ILLINOIS

TILE-TEX
Resilient Floor Tile

COUPON

The TILE-TEX Company
School Division, Chicago Heights, Ill.

Send your book *"Floors That Endure"* and give name of nearest Tile-Tex distributor.

Name .....

Address .....

City ..... *State* .....

Ask the Janitor

or whoever gets the repair jobs. He will tell you why a "Royal" installation is a lifetime installation. In construction, in finish and *in its solid wood-work,* "Royal" recognizes that repairs cost money even when done by the school janitor.

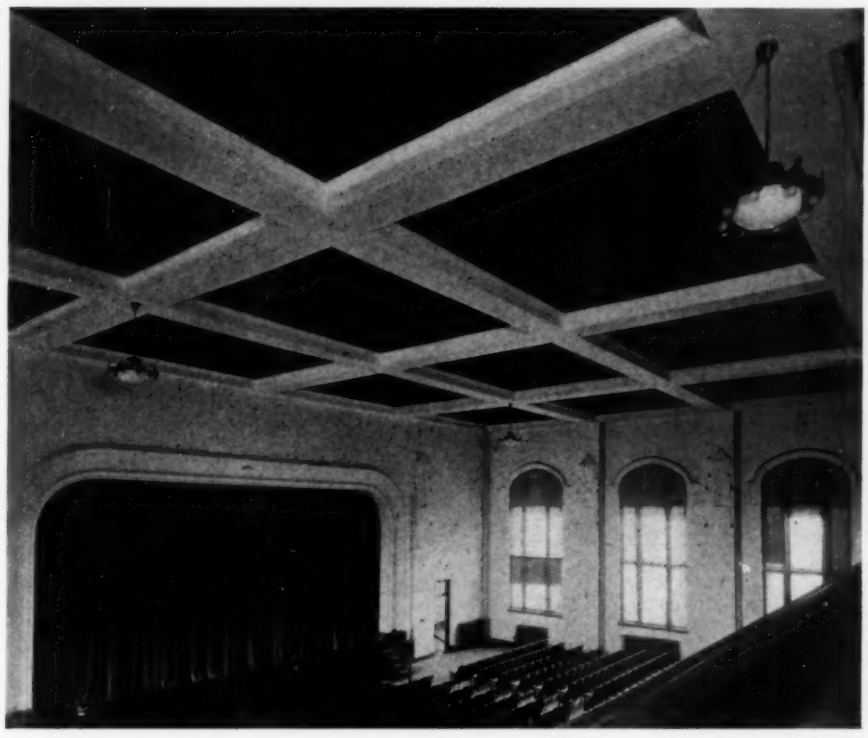
THE Royal CHAIR
"A Lifetime Chair"

CORRECT POSTURE MEANS SADDLE SHAPED SEATS

ROYAL METAL
Manufacturing Company
1138 So. Michigan Boulevard
CHICAGO

Now the curtain may *RISE!*

... Every note, every word is clearly heard in this auditorium... made acoustically correct with Armstrong's Corkoustic



Armstrong's Corkoustic gives adequate acoustical treatment to the auditorium of the New Junior High School, Decatur, Ill.; Architects—Brooks, Bramhall & Dague, Decatur; General Contractor—B. M. Dennis & Sons, Decatur.

NO echoes, "dead spots," or reverberations disturb the perfect reception from the auditorium stage of the New Junior High School, Decatur, Ill. Whether you are "down front" or in a far seat in the gallery, you hear every note sung, every word spoken. The secret is up on the ceiling—a ceiling acoustically treated in the modern manner.

This modern acoustical treatment is achieved with Armstrong's Corkoustic. Sturdy, textured cork with special sound absorbing qualities is installed on the ceiling. But it is installed only after a careful analysis of the room. Armstrong engineers know that each acoustical problem is different.

Armstrong's Corkoustic is used, not only for the acoustical treatment of auditoriums, but for the sound quieting of classrooms, corridors, and gymnasiums. The sound-absorbing cork can help you to hush unnecessary noises in every schoolroom—just as it subdues noise in churches, banks, offices, and hospitals.

Corkoustic ceilings—and walls, too—are valuable for other reasons. School authorities will learn that Armstrong's Corkoustic has high insulating value. Where this acoustical material quiets airborne sounds, the temperature is also controlled. The room is warmer in winter, cooler in summer. A single layer of Corkoustic on top-floor ceilings is economical, since it solves the insulation problem as well as the problem of acoustical correction.

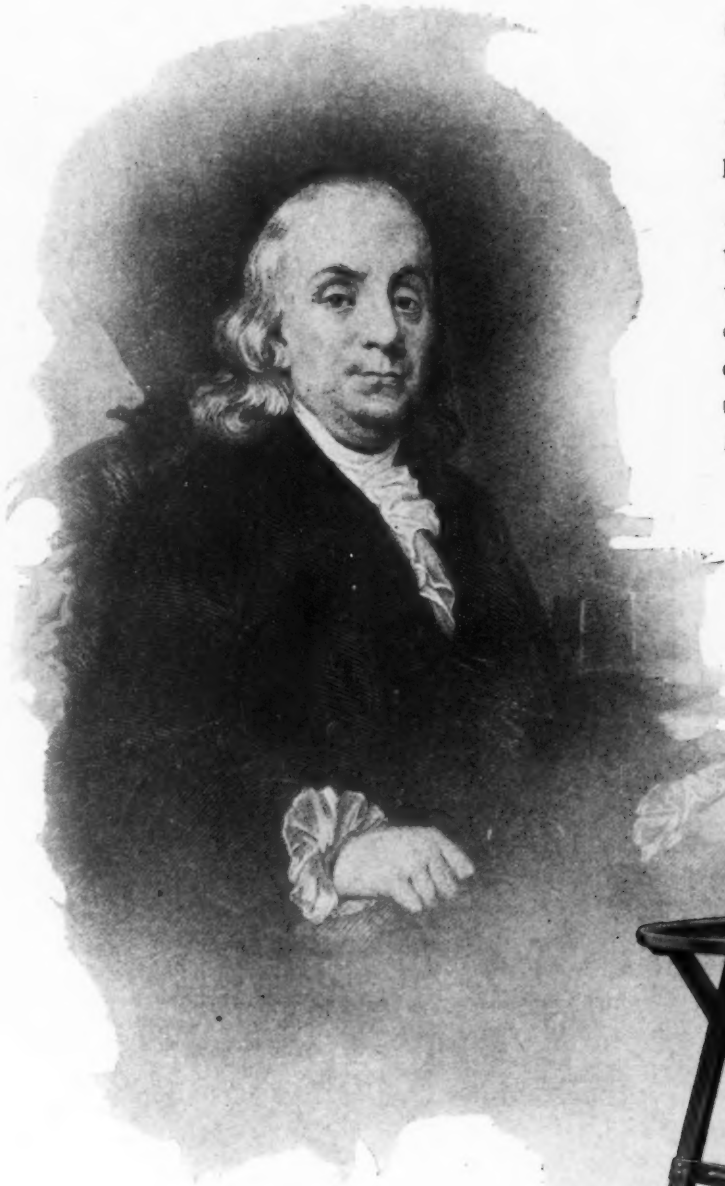
You will find, too, that Armstrong's Corkoustic has great decorative possibilities. If you prefer a rich, dignified effect, the natural browns of cork will be just right. If you want brightness and color, then one or more spray coats of cold water paint will do the job—*without affecting the sound control quality of the material in any way.*

Why not send for our book, "Acoustical Correction," right away? Then later you can call upon Armstrong engineers for recommendations and suggestions. Of course, there is no obligation. Simply write to Armstrong Cork & Insulation Company, 939 Concord Street, Lancaster, Pennsylvania.

Armstrong's
CORKOUSTIC

Sound Quieting and Acoustical Treatment for Schools

"For Want of a Nail the Shoe is Lost"



BENJAMIN FRANKLIN, patriarch, printer, inventor, and orator — believed that a chain was no stronger than its weakest link — that perfection was made up of many details.

Applying this philosophy to manufacturing, we find in the *Royal Folding Chair,* a product whose every detail is watched with meticulous care so that, completed, it embodies all essentials so necessary in a chair for school use. *Royals change tension to attention—and they are the strongest, too.*

CORRECT POSTURE MEANS SADDLE SHAPED SEATS

Seats of saddle-shaped steel, wood slats, wood veneer and upholstered.

Noiseless rubber or glider feet. Supplied singly or in sections of two or more chairs, as required.

THE Royal CHAIR

"Another Lifetime Chair"

ROYAL METAL
Manufacturing Company
1138 So. Michigan Boulevard
CHICAGO

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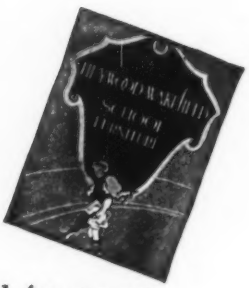

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VOLUME V APRIL, 1930 NUMBER 4

Education in the Spirit of Life*

If education is to become an inseparable and integral part of a useful life, it must be, like life, progressive, practical, dynamic, recreative, friendly, cooperative and idealistic

By FRANK CODY, Superintendent of Schools, Detroit

EDUCATION in the spirit of life is education that is the embodiment of our present civilization, education that gives to youth only those experiences of the race that have a direct meaning and use in the world to-day.

The religious philosophy of the ancient Hebrew, the art and culture of classic Athens, the body of law of the old Roman state are all of value to us only insofar as they are transferable to our modern age. The Roman tribune in and of himself has no particular interest for us, but as the predecessor of the representative of the people in modern democratic government he makes a definite contribution.

Mathematics, a finely sharpened tool, forged with long effort from primitive number systems for the intricate calculations of astronomy and the other sciences, has little value save as a tool. Abstract generalizations are for the scientist in his laboratory. Arithmetic of the every-day business world, and not the binomial theorem, is necessary for the average citizen.

The Lesson That History Teaches

The long story of history is for us an account of the evolution of civilization up to the present time. Wars and the exploits of famous generals fade in importance before the great contributions of statesmen, of men of letters and of scientists whose achievements have shaped our present social order. Caesar's conquest of Gaul no longer concerns anyone except second-year Latin students, but his organization of provincial governments centralized in Rome is still of vital interest. Aristotle, more than Alexander, and Newton, more than Napoleon, should be glorified.

Education Must Be Progressive

History should be not a mere accumulation of facts about the past, but a means for cultivating breadth of view, tolerance and wisdom. Arid and useless chronicles must give way to a vitalized history that seeks to replace archaic ideals, fears and superstitions by truths that conform to the actual situations of to-day. We are what we are to-day because of the past. Our languages, laws, customs, religions, all prove this. We cannot escape the inevitable hold of the past. To understand it is to understand ourselves. It behooves us, then, to become more historically minded, to seek to interpret the lessons of the race, social, moral, and intellectual, for the betterment of the world to-day.

Education in the spirit of life must recognize and use the great motive forces that control living. Life is progressive. It is continually advancing. Education must discard the outgrown categories of thought of a bygone age and acquire a scientific attitude in order to understand and carry forward the amazing discoveries of our age. Scientific achievement has upset the old social order. Education must be open minded, flexible,

*The president's address given before the Department of Superintendence meeting in Atlantic City, February 22-27.

and ready to cope with new situations, mental, social and physical. We cannot sit in our classrooms and prate on midvictorian virtues to sophisticated young people who smile at old fogies. We must make their sophistication scientific and intelligent, and a new social order will result that is sure and firm, based not on an obnoxious Mrs. Grundy, but on reason.

This does not mean that we will discard all our timeworn conventions. In spite of the intoxicating newness of our rapidly changing order, we must hold steadfastly to those great spiritual truths in terms of modern life and adjust the machinery of our educational organization to the new situation. Education may be the same at heart, but she must not wear hoop skirts in the days of bobbed hair.

The Need for Practical Knowledge

Life is practical. Education must be usable. We are no longer training for a leisure class. The laws of our land compel the young people to remain in school long beyond childhood. We must give them skill in some line of remunerative work. We must turn out a product that is not only good, but good for something. Every path through our schools should lead to some definite goal, whether it comes at the end of a professional course in the university, or a part-time continuation school. We must know the professional and industrial world for which we are training the workers of tomorrow. It is no longer enough for a teacher to have a theoretical knowledge of his subject. He must know how to use it in a practical field of endeavor. Vocational knowledge should be a part of the equipment of every teacher, and vocational experts should be continually active in bringing the results of investigations of industrial conditions into our schools. We might amend the Ordinance of 1787 to read, "Religion, morality, good government and the ability to fill a useful place in the world being necessary to the happiness of mankind, schools and the means of education shall forever be encouraged."

Life is dynamic. Education must be vital, alive, active. It is deeply concerned with the social and industrial problems of the age. Since the war, our American life has become intensely restless. We are all caught in a veritable whirlpool of change and discovery. Our educational institutions cannot resist the tide. Education can no longer be conservative and academic. It cannot sit back and be content to observe and reflect. It must act. Research and investigations of all sorts should terminate in a definite course of action for the betterment of society. The progressive, scientific attitude should carry on into accomplishment. It is useless to send out questionnaires only to file away the results. They must be used to direct instruction along the main tendencies of our time. Let "Skill is wisdom in action" be the slogan of our dynamic education.

Life is recreative. We must train for leisure. Here again the changes in our physical environment have upset the old order. Machinery has given the workman more leisure and hence more temptations. Increased leisure brings with it a possibility of social disintegration. Education needs a constructive program in true recreation, both in a spiritual and a physical sense. A comprehensive health education teaching the joy of physical exercise and clean athletics should form a large part of every child's training. Games of physical prowess, the sheer joy of exercise, "the cool silver shock of the plunge in the pool's living water," have had recognized educational value since the days of Plato.

True education is based not on a pragmatic philosophy alone, but it must widen the scope and deepen the meaning of our esthetic experience as well. Education for leisure will stress a training for the appreciation of all that is fine in music, art and literature. Music is coming rapidly to the front in our schools to-day. School bands, orchestras and choruses are bringing joy and beauty into what has been too often a drab, dreary day. Literature that is fine and uplifting and at the same time interesting and understandable should be read for enjoyment, not scanned and analyzed. Art in every form, industrial, domestic, commercial, interior decorating, painting or sculpture, or any art that teaches appreciation of beauty should be welcome in our schools.

The Teacher—A Companionable Leader

Life is friendly. Education is not a cold, austere duty, but a journey down a friendly road. Such education has no traffic with race prejudices or dogmatic differences in creed. It strives always to maintain a proper balance between individual freedom and the welfare of the group. The teacher is not a severe taskmaster in a dreary round of discipline, but a kind, companionable leader in a congenial and inspiring place.

Life is cooperative. Education has a twofold duty to the community. It must reflect the will of the people, and at the same time it must strive to raise the standards of life of the community. Our schools are what the people want them to be. If they are good, it is because we have had the trust and loyal support of the public. It is the earnest wish of every parent's heart to give his child the best opportunity that life affords. The public school stands for that opportunity. It is

the most American institution in our land. It has grown up in our soil, the very essence of American ideals of democracy and equal opportunity for all. Schools have demanded the largest portion of our taxes and the people have gladly given it. It rests with us to be sure that "for value received we promise to pay." Our schools cannot be aloof from the community. They must be a part of it.

Cooperation in Education

Society has always put definite rewards upon certain lines of achievement and the young people have striven for the best of these rewards. In our early colonial history, the ministry claimed the highest approval of the social order, and most educated young men aspired to that calling. Another period stressed the value of legal training, and the law schools were the most active fields of competition. To-day engineering and business are claiming the attention of our youth because the social order so ordains. Should our people suddenly revere music and art above everything else, we would turn out great musicians and artists. Our schools are but the reflection of the ideals and desires of the community.

The bringing together of all the peoples of the earth so that the daily news circles the globe will undoubtedly bring about unprecedented cooperation. This is already evident in the present movement for world peace. The very existence of the Department of Superintendence indicates a desire on the part of the various states for cooperation in education. Cooperation on a large scale is characteristic of modern enterprises.

For more than a century the federal government has actively supported and influenced education through grants of land, through special appropriations, through the conduct of certain training institutions and through the organization of divisions within the federal departments, notably the Office of Education and the Children's Bureau. These manifold educational activities of the government have been inaugurated from time to time by enthusiastic supporters who apparently held the most diverse views with regard to the fundamental relation of the federal government to states and local communities. Every conceivable type of grant and of organization can be found in operation at the present time, some with control, others without, some having the purpose of stimulating, some the purpose of equalizing, some for special groups of citizens and some for the whole nation.

President Hoover, because of this conflicting and confused practice, has called into counsel, through Secretary Ray Lyman Wilbur, fifty representative leaders in education in a National Advisory Committee on Education and has asked them to chart for the government a consistent course of action. The President has also organized advisory committees to develop plans for promoting child health and welfare and to find methods of reducing illiteracy. The policy of the president in thus providing for a fundamental study of educational policies commands the most enthusiastic approval of all teachers.

One agency which is active in bringing about educational cooperation is the American Council on Education, a national organization of which the Department of Superintendence is a constituent member. The council has sponsored a number of important enterprises of national scope, the most recent of which was the study of modern language teaching. Within the last ten months it has organized ten of the large school systems of the country into a group actively engaged in preparing through the school systems reading materials that shall supplement the present curriculum by introducing material that emphasizes the social import of all teaching.

There remains one last division of our theme. Life is idealistic. Education must aim high. The ultimate ideal of true education is to develop character, to lead young people to the highest and strongest spiritual grounds, to keep ever before them the loftiest, most challenging conceptions of human worth and, above all, to elevate their own estimate of their individual worth and possibilities. Education that has failed to do this has lost its own soul. As we would have life so must our education be.

The Teacher's Responsibility

Our government is the greatest experiment in democracy in all history. Whether it shall stand or fall depends upon the education of its future citizens. President Hoover, who continually stresses the responsibility of education for future growth, says, "With the growth of ideals through education, with the higher realization of freedom, of justice, of humanity, of service, the selfish impulses become less and less dominant."

Surely the teacher of to-day stands in a responsible position and, in the last analysis, our education rests on the classroom teacher. Buildings, equipment and organizations are but bulwarks to strengthen him. The seven outlooks of life that I have mentioned are the outlooks of the real teacher. If he is progressive, practical, dynamic, recreative, friendly, cooperative, and idealistic, our schools will be likewise, and we may more nearly reach the ideal of the great Teacher who came that "we might have life and have it more abundantly."

Louisiana is providing better schools for Negroes

The Jeanes Supervising in Negro

By E. S. RICHARDSON, Superintendent,

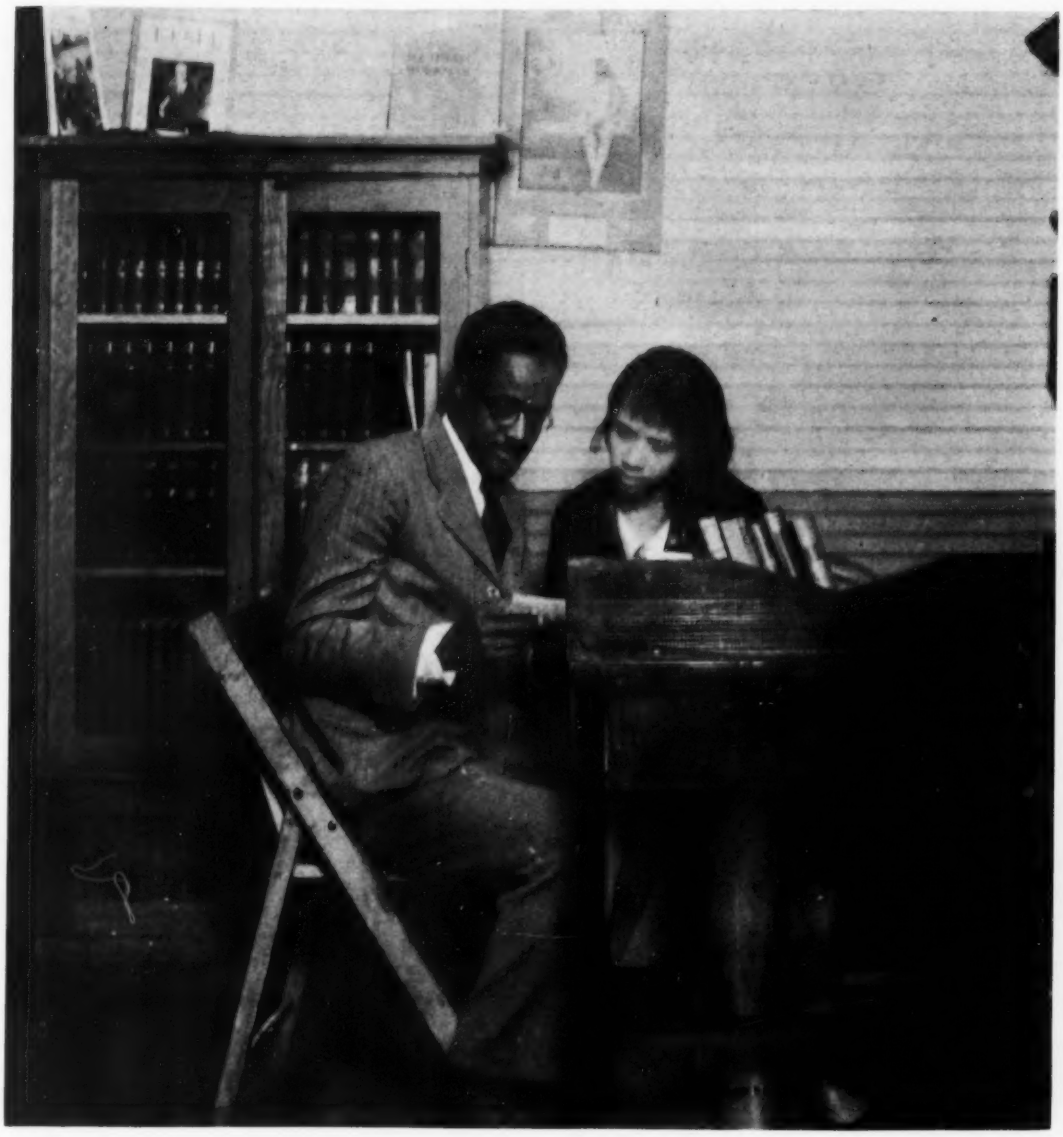
THE Jeanes and Slater Funds of Charlottesville, Va., play a leading part in Negro education in the South. The value of the Jeanes supervising teacher to the parish superintendent depends to a large extent on local conditions.

A discussion of this subject must take into consideration the conditions found in certain localities, the aims and purposes of the work, the educational qualifications of the supervising teacher, his attitude toward the white race, his attitude toward his own race, his ability to organize, his ability to make friends not only with the whites but with the blacks and, finally, his conception of his job.

Someone has said that the business of these traveling teachers, working under the direction of the county superintendents, is to help and encourage the rural teachers; to introduce into small country schools simple home industries; to give lessons in sanitation and cleanliness; to promote the improvement of school houses and school grounds, and to organize clubs for the betterment of the school and the neighborhood. This general statement covers well the duties of a Jeanes supervisor.

In my judgment, his opportunity to do good work in the parish depends largely on the attitude of the parish superintendent regarding the necessity for Negro education. Some superintendents and school boards do not yet thoroughly approve of this work; some officials give little or

*An address given at the conference of Jeanes Teachers, Alexandria, La., February 7, 1930.



Negro librarians help stamp out illiteracy

Teacher—A Potent Force Education*

WEBSTER PARISH SCHOOLS, MINDEN, LA.

no cooperation and support; others attack this elementary problem in the light of bookish definitions of the supervisory process. Technical methods of supervision cannot be applied in this work. In other words, some of us seem to be more interested in the method of doing the technical supervisory job than in the end attained. Both the parish superintendent and the Jeanes supervising teacher should realize in the beginning that the job is elementary but important. Technical methods cannot wholly be relied upon in dealing with this problem.

I do not mean to minimize the value of technical knowledge applied to supervision. The Jeanes supervising teacher should have some knowledge of the work of Barr, Burton, Strayer, Inglehardt, Cubberley, Morrison and Monroe, but he cannot afford to be guided entirely by their theories. The theory of supervision is important, but the success of this work depends on the supervisor's ability to arouse in his people a desire for more knowledge, to create in them a thirst for the better things of life, without stirring up discontent. There is great danger that the supervisor, who has a superficial knowledge of technical supervision, may lean too much toward the bookish conception and become confused as to methods of procedure and lose sight of the real goal. This applies to some supervisors even in advanced school systems. Simplicity in the supervisory process is always a real virtue and the final objective should be kept in mind.

Educators differ widely as to the most direct

and efficient method of improving instruction. We have not yet agreed on what is of first importance in the improvement of instruction. We have almost as many methods of procedure as we have members in the profession. Some insist on the importance of standardized tests and questionnaires, others on examination, others on teacher-pupil activities. We are somewhat like the members of different religious creeds or sects—all striving toward the same end but differing somewhat as to the best method of reaching the goal.

Research in supervisory methods is just beginning, and a great deal is yet to be done. No field in education to-day offers so many opportunities for research and investigation. Research is not the business of the Jeanes supervising teacher but he should realize its importance, take advantage of every opportunity afforded for study and to a certain extent equip himself technically for his work. In my judgment, however, if these things are overdone, originality will be killed.

The selection of the supervising teacher is of vital importance. His ability to hear and respond sensibly to the silent call of the children of his race for higher things in life is his most important qualification. He should possess ability to lead his untrained teachers and arouse in his race genuine pride and loyalty to their country.

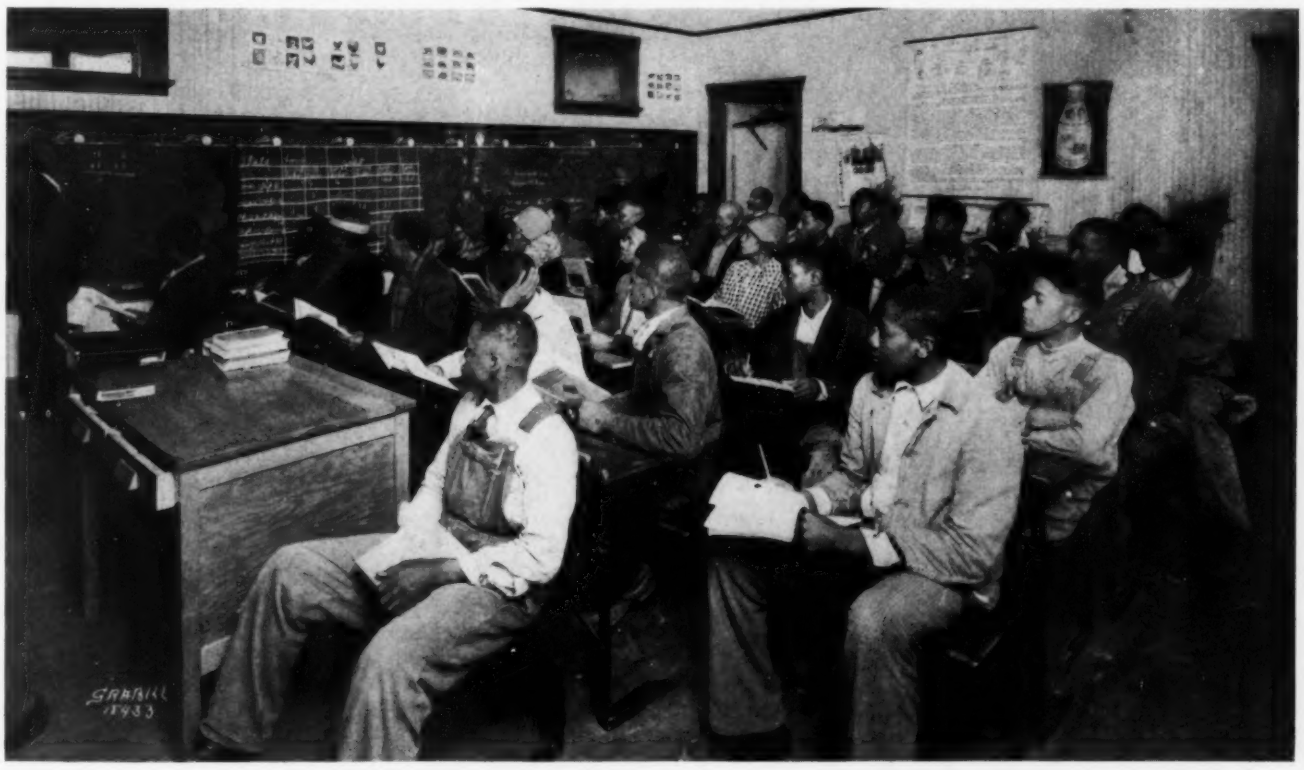
"A book for every type" is the slogan of the library, where Negroes from all sections of the parish come for books, as shown in the upper picture. A class in chemistry is shown below.

Many of the patrons of the library service are adult Negroes who have been taught to read and write in the parish schools. An arithmetic class for adults is shown in the lower picture.

By precept and example he should instill daily into his pupils fundamental ideas that will enable them to live peacefully and harmoniously with the white race. He should act, preach and teach the gospel of love and appreciation. By a shrug of the shoulder or by innuendo he can cause trouble between the races that would perhaps offset the good work that has been accomplished by the efforts of all the Jeanes supervisors combined.

The supervising teacher in the parish can do little unless he has the respect and good will of the majority of the leading white citizens. This is fundamental because his work is necessarily of a cooperative nature. Because of our desire to promote Negro education, we have perhaps sometimes disregarded this situation. It would be better to exchange a technically trained supervisor for one who is not quite up to the standard but who has the proper attitude toward the race problem. After all, this work is largely of a missionary nature. The Jeanes teacher must not only have the ability to convince the white people in the community that the Negroes need better schools but he must bring them to the point where they will make donations to the cause of Negro education.

I admit that I have described a position that is difficult to fill, but I have not overstated its importance. If superintendents who really believe in the importance of Negro education could employ the type of person I have described and give him proper cooperation, Negro education in the



South would not lag but would move forward almost by leaps and bounds. No people are more anxious to have light educationally than are our Southern Negroes. In my judgment a great opportunity to develop the South is being missed because of prejudice against Negro education. The South is the Negro's home; we understand him; he understands us; he makes the best laborer, and he is easy to satisfy. Why not give him better schools and make of him a clean, healthy, law-abiding, respectable citizen? Would it not be a real dividend paying investment?

If a powerful monarch or landlord owned and controlled the South, where live almost ten million untrained Negroes, he would, from a business standpoint, make an effort to improve their skill as laborers, because the South is an ideal place for the development of all kinds of industries. He would foster education among the Negroes in order to develop the superior agricultural possibilities of the South.

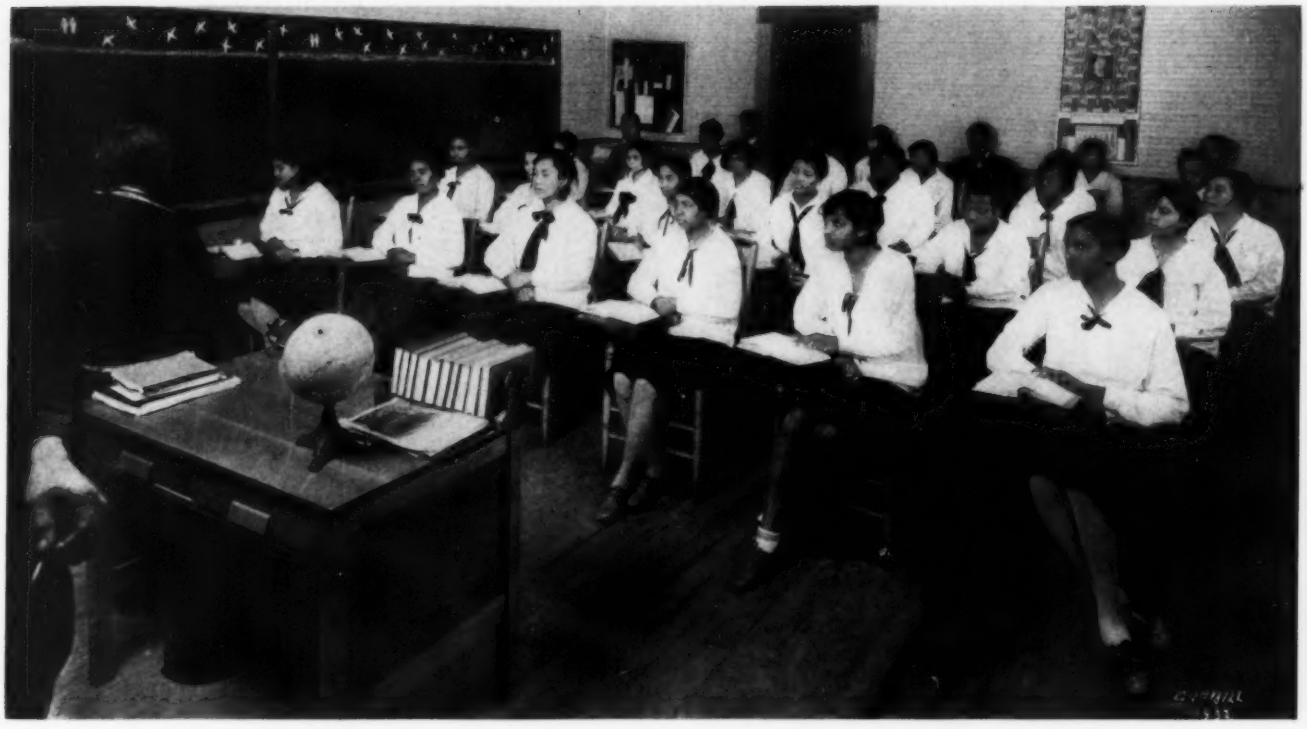
The highly favorable position that the South now enjoys will not always exist. Should we not at once begin to capitalize in a large way our greatest asset, black labor? Should we be less wise than a monarch, whose aim would be for profit only? Are we being lulled to inactivity by false sentiment and sleeping idly on a field of hidden treasures?

It seems to me the time has come for leaders in religion, education and business to place themselves definitely on the affirmative side of the question of Negro education. No state or section can develop normally—educationally, religiously or commercially—when so large a percentage of its population is dependent, sick and illiterate. It is time for the South to wake up to this situation and use every means possible to stamp out the curse of illiteracy. Honor is due T. H. Harris, state superintendent of Louisiana, for his leadership in this respect. Dr. Edward Wallace Knight of the University of North Carolina has said: "The rank of education in the Southern states is kept low in part by the Negro. The general attitude toward his education lies close to the root of the whole problem." An editor, commenting on Doctor Knight's statement, said, "The failure of the state legislatures to bring the schools up closer to the average standards of the nation is apparently due in part to a reluctance to apply the standards to the Negro schools."

As Many Blacks as Whites in Schools

While the Jeanes supervising teacher is not responsible for all the development in Negro education that has taken place in Webster Parish, Louisiana, he has been for several years a constant, positive force for better things for Negroes. The school population of the parish is about equally divided between whites and blacks. The large population of blacks has made the question of Negro education a real problem in the face of the existing public sentiment combined with the inability of the colored citizens to lend substantial financial aid in the way of taxes to the school program. When I became superintendent of Webster Parish schools in 1921, there was no colored supervising teacher or any definite program for the improvement of Negro schools. A supervisor was appointed and a plan that met

The arrival of the library truck is an event in the rural community.



These girls are being trained as teachers for the Negro schools of the parish.

the approval of both the whites and the blacks was presented to the board. The plan in brief is as follows:

The board proposed that if all Negro communities in the parish that desired to build a school would plant at least ten acres of cotton and cultivate it under the direction of the assistant demonstration agent and the supervisor and turn over the proceeds at the end of the year to the school board, the board would contribute a like amount out of the general fund. Arrangements were also made with the representative of the Julius Rosenwald Fund, through the state department of education, to supply as much money for school buildings as the Negroes raised from their cooperative farm projects. During the year 1925 the Negroes of the county turned in to the board $6,000, and in 1926 under the same plan they made eighty bales of cotton. From their farms alone they have turned in $16,425, and have constructed twenty Rosenwald buildings. They have now formed a parishwide organization called "The Webster Parish School Patrons Welfare Association." It meets semi-annually in the auditorium of the Webster Parish Training School. Within the next two years we expect to have a Rosenwald school within the reach of every Negro child in Webster Parish. In addition to contributing a third of the money appropriated by the school board, the parish has equipped these new buildings with the best type of single desks.

After viewing the deplorable situation found in the Negro schools following the survey, the school authorities decided that from both an educational and an economic standpoint, the parish should offer better opportunities for Negro children or entirely eliminate the meager support that was then being accorded them. They decided to try an experiment in Negro education.

Four Teachers to Two Hundred Pupils

At that time the Negro school plant in the city of Minden was a four-room dilapidated, unscientifically constructed shack on a small clay plot of land, where four inexperienced teachers taught as best they could about two hundred children for a period of five months. It was decided to build a real school with money received from a bond issue and the aid of the Rosenwald Fund. This school was situated on a new thirty-acre tract of land near the city and was named the Webster Parish Training School. It has grown remarkably. There are now, in addition to the main building, a dormitory for girls, a grade school, and a four-room Rosenwald training school. In addition to the money contributed from time to time by the school board, the white citizens have raised about $4,000, the colored citizens $2,000 in cash, plus hundreds of dollars worth of free labor. The plant now is worth $45,000. The school rates as a Class A school. It has a faculty of fifteen teachers, and operates for eight months of the year. The total pay roll is $10,570 and the enrollment, 619. It is well equipped and modern in every respect.

The school has served and is now serving its

This class of midwives receives monthly instruction in the care of mothers and babies.

purpose well, and has been an important factor in changing the views of the citizens of Webster Parish on Negro education. The people of Minden have expressed their approval of Negro education by contributing thousands of dollars for additional equipment and buildings. In conjunction with their academic work the pupils are taught such simple things as how to use a tooth brush, the relationship of cleanliness and health, the value of politeness, how to prepare a balanced meal and much similar information. The spirit of the school has been demonstrated to the white people of the community by the school boys and girls who serve in their homes during the summer vacation.

In the absence of a teacher training school for Negroes, this institution, in addition to the functions mentioned, is rendering a valuable service in providing teachers for the Negro schools of the rural sections of the parish. The school has trained sixty-one teachers for rural service.

Water Supply Supervised by Health Unit

The Webster Parish Health Unit, cooperating with other agencies, is carefully guarding the health of the Negro children. The health nurse gives vaccinations for smallpox, inoculations for diphtheria, typhoid fever and other preventable diseases and holds baby clinics at the schools. She also gives an hour's instruction once a month to a class of forty midwives in prenatal care of mothers and the care of babies. The midwives are required to report all complicated obstetric cases to the nearest physician. Special emphasis is placed on the importance of cleanliness and sterilization at the time of childbirth and the midwives are shown how to use needed articles in such cases. They are taught how to administer silver nitrate solution to prevent blindness in infants. This solution is supplied free. All cases of labor are reported to the health unit by the nurse. Free laboratory service is available for indigent Negroes suffering from contagious or infectious diseases. The water supply for the schools and the building of sanitary toilets are supervised by the health unit.

Classes for Adults Bring Good Results

In Louisiana's campaign to stamp out illiteracy, led by State Superintendent Harris and ably assisted by Dr. S. M. Robertson, the Jeanes supervising teacher, cooperating with other agencies, has been of special value to the superintendent in organizing classes for adult illiterates in all the rural communities of the parish. With the help of the teachers and the colored ministers, several hundred adult Negroes have already been taught to read and write. At present such classes are being taught in all the country schools, with a total enrollment of 675 adults.

During the summer of 1929 a parishwide library program was undertaken, with the purpose of providing books for children and adults of both races in the parish. This project was launched as an experiment. It is being financed within the parish by the school board, the police jury and the city councils of Minden and Springhill; outside help is being given by the State Library

Commission and the Julius Rosenwald Fund. The experiment is to be tried for five years. The Rosenwald Fund will give dollar for dollar up to $10,000, for the first two years. After that time, there will be some decrease in the help from that source.

Negroes in all sections of the parish have shown themselves interested in this new service. Children, adults, illiterates and literates are using the library. Branches have been organized and are in operation in different parts of the parish. Community meetings have been held in the interest of the library and in most cases every seat in the school auditoriums was taken, which indicates the keen interest manifested by the Negroes. A college trained Negro librarian is in charge of the Negro library service. The library board reports that for the first six weeks after the service was opened, one community had 132 borrowers, 186 books, with a circulation of 283; another community had 99 borrowers, 167 books, with a circulation of 571. Books are coming into the library steadily, but the demand is growing faster than the supply. Men and women who have never been interested in any community project are taking active part in community affairs. We predict that this service will develop a better understanding between the races and will eventually destroy prejudice and hatred between citizens and will reduce crime and court costs.

Parishwide good will, racial friendliness and a gradual lengthening of the school term are hastening the time when in Webster Parish every Negro child will be taught by competent teachers in a clean, comfortable building, properly supervised, physically examined and provided with books to suit his need.

The Contract Plan of Instruction as It Is Used in One School

Clyde D. Mitchell, principal, Highland Township School, Perrysville, is administering the contract plan of instruction in practically all of his high school classes. The school day is divided into five sixty-five minute periods and one activity period of forty-five minutes. Each instructor teaches five periods.

The teacher prepares a unit in three forms, one for each of three levels—fair, good and excellent. The problem of enrichment and difficulty must be considered in making the good and excellent units, or contracts. These contracts, in mimeographed form, cover about one week's work.

Mr. Mitchell comments on class procedure as follows: "The teacher may give a brief introduction to the unit. The pupils read the entire contract. They then follow the directions given in the contract and proceed to work. This work includes some laboratory work, answering of questions given in the contract, outlining, reading reference material, studying of the answers obtained from books, explaining diagrams and many other forms of work."

In discussing the merits of the contract plan of instruction Mr. Mitchell continues: "This plan or a similar one must be kept adaptive and flexible, or it will most certainly fail. With us it has been purely experimental, but we feel that it is workable not only in the small high school but in the large as well. Some of the outstanding advantages are: provides for individual differences within the group, does not require ability grouping, utilizes the differentiated but not the indefinite assignment, challenges pupils at all levels, permits enrichment to meet all pupil capacities, gives meaning and value to marks since the pupils are compensated directly for the work they do, and causes pupils of different abilities to share their experiences."

May Day and Child Health in America

May 1 has come to be accepted in America as National Child Health Day and plans for celebrating the day appropriately are now completed in schools throughout the country.

Last November the National Child Health Day Committee of the state and provincial health authorities adopted the following program for May Day, 1930: to name a permanent state chairman for May Day, preferably the director of the state division of child hygiene; to organize immediately a state child health council, or to designate some similar organization to function, if no council exists; to request the governor to issue a proclamation on National Child Health Day immediately after the President of the United States issues his proclamation; to accept "parent cooperation in the community program for child health and protection" as the keynote of the 1930 May Day program.

There is every reason to believe that this May Day celebration will surpass that of last year, which showed marked progress in the child welfare movement as it is being promoted in this country. Not merely did every state plan for the 1929 program, but tiny communities remote from the centers where the plans were made, held successful May Day celebrations. Programs, both original and practical, were given by large and small schools alike.

What Newspapers Publish About Education

To determine whether newspapers are featuring news that will win reader interest, a study was made of the reactions to school news of 5,076 school patrons and teachers

By BELMONT FARLEY, Assistant Director, National Education Association, Washington, D. C.

FEW subjects are of more interest to people than the welfare of their children. For this reason a considerable amount of school news finds its way into the press. That the few careful studies of educational publicity have been largely concerned with considerations of the amount of school news is not to be taken as a lack of recognition of the importance of its quality. Quantity is more easily measured, is more elemental and naturally is the first approach to the development of any new field.

Progress in interpreting the schools has now reached a point where urging that systematic interpretation be made and measuring the extent to which it has been made are secondary to the question of how to perform the task. Writing stories and feature articles that will find their way into news print is one thing; filling white space with matter that will be read and will be effective is another.

Someone has said that American newspapers print what is interesting, while British newspapers print what is important. The American newspaper editor would answer this criticism, if it is one, with the reply that anything interesting is important, while the British newspaperman would insist that anything important ought to be interesting.

Reader Appeal of Prime Importance

However this may be, educational interpretation must be both interesting and important. Interest and importance are the first elements for consideration in the improvement of its quality. An article will not be read unless it appeals to the interest of a reader. Influencing the reader's opinion is of little moment unless the matter is of importance.

The importance of a reported fact concerning the schools may well be determined by the administrator, who knows how significantly it reflects educational conditions and how its acceptance may eventually affect school progress. No one can judge the interest of a reported fact except the reader. Interest has the same function, in even a larger degree, in educating public opinion as it has in the pedagogy of the classroom. In pupil instruction compulsion may be substituted in some measure for interest. In the education of the public, compulsion cannot be invoked.

Interest in a story depends upon what the story is about and upon the skill or art with which it is told. Few will contend that the literary qualities of a story have a stronger bid for interest than the content. However charmingly a story may be written, not many persons will read it with pleasure if the subject matter bores them. A study intended to throw light upon the improvement of the quality of educational interpretation is first of all a study of reader interest in content.

How to Test Effectiveness of Copy

What content makes a school news or feature story interesting? Human interests vary in accordance with such complex patterns of original nature, experience and prejudice as defy analysis. They are as difficult to foretell as human conduct. The only practical way to determine a reaction is to offer a stimulus and record the result. The reaction that consistently occurs with the greatest frequency under given conditions may fairly be considered the reaction that will continue to recur most often.

Because of the enormous expense of advertising, the commercial advertiser has developed methods of testing the effectiveness of his copy by submitting it to the randomly selected, probable purchasers of his product and thus learning their reactions in advance of publication. Prejudgments of this sort are usually obtained upon the "selling arguments" or content that constitute the advertising copy.

By applying this technique of commercial publicity to the field of educational publicity, I sought the interest reactions of 5,076 school patrons and

teachers in thirteen cities. Patrons were selected because as a class they may be assumed to be most vitally concerned with the schools. As consumers of school news, their interests are significant. Thirteen per cent of the 5,076 were teachers. Teachers were included because their occupational interests impel them to follow school affairs closely. Some large city dailies publish an educational page chiefly for teachers.

Thirteen Cities Were Studied

The study of reader interest was made in the following cities: Lynn, Mass.; Beaumont, Texas; Elizabeth, N. J.; Jacksonville, Fla.; Bisbee, Ariz.; Cape Girardeau, Mo.; Alexandria, Minn.; Montclair, N. J.; Junction City, Kan.; Sedalia, Mo.; Boise, Idaho; Denver, Colo., and Cliffside Park, N. J.

These thirteen cities are widely separated geographically and because of their great variation in occupational interest, size, social and economic level, traditions and prejudices, they may be considered average samples of American cities. Since patrons were selected only on the basis of having children in school, the replies may also be considered typical of American parents in general.

In securing the interest reactions of these 5,076 patrons, school news was divided into thirteen general topics: school buildings, health of pupils, the parent-teacher association, the board of education and administration, business management and finance, methods of instruction, courses of study, attendance, pupil progress and achievement, discipline and behavior of pupils, extra-curricular activities, teachers and school officers, and the value and use of education.

The expression of interests of these 5,076 consumers of school news shows that pupil progress and achievement, methods of instruction, courses of study and health of pupils are the four most appealing topics for school publicity. The other topics follow in order: value of education, discipline and behavior of pupils, teachers and school officers, attendance, school buildings, business management and finance, board of education and administration, parent-teacher associations and extra-curricular activities.

What School Patrons Want to Know

In other words, patrons wish to know what their children are being taught, how they are being taught, what results are being achieved and how the public schools affect the physical welfare of their children. They are more interested in these things than they are in the behavior of the children at school, the qualifications of their teachers, the regularity of attendance, the kind of buildings in which they are housed, how much money is spent, how the schools are administered, what the parents are doing for the school or what are the activities carried on at school, usually referred to as extra-curricular.

It is significant that the patrons have placed the value of education fifth. After children leave school, what then? Of how much value will the school's contribution, mentally and physically, be to the individual in his adult life; of how much value to social progress in general?

The patron has thus declared himself receptive to the type of information for which the school publicist seeks acceptance. In terms of educational results the patrons ask, "What are you doing? How do you do it? Of what value is it?" They are not asking how much the schools cost, how well the pupils are housed, whether the teacher admonishes them with kindness or whether proper accounting is made of funds. Interested though they are in these matters, the paramount question asked of the educator by the patrons of the schools is, "What are your results?"

Writing the Story

A consideration for the interests of school patrons should impel those responsible for the school publicity program to provide news and feature articles showing the desirable educational results of the schools. They should show that these results are achieved by efficient, scientific methods, that children are taught useful knowledge, habits and skills, and that their physical welfare is not neglected.

In order to learn how nearly the publicity programs of these thirteen cities disclosed an attempt to satisfy the expressed interests of the school patrons, I analyzed the newspaper publicity in these cities during or near the time of my study of interests in these communities. The analysis covered approximately all the issues of a three-month period for each newspaper. Issues were read for every school month except September and November. The newspapers were all dailies, except one weekly. The circulations of the dailies varied from 4,000 to 50,000.

In the 737 issues of the ten newspapers read, 41,002 column inches of school news appeared, which shows a willingness on the part of newspaper editors to give space to school news. Of the total, 39,265 column inches of school news items were classified without difficulty under the thirteen topics that the patrons and teachers of the communities had been asked to rank in interest order.

The proportion of white space devoted to these topics was as follows:

	Per Cent
Extra-curricular activities	47.1
Teachers and school officers	9.2
Parent-teacher associations	8.2
Pupil progress and achievements	5.6
Board of education and administration	5.2
Course of study	5.0
Business management and finance	4.8
Buildings	4.1
Health	3.3
Methods of instruction	2.9
Discipline	1.7
Value of education	1.5
Attendance	1.3

The disagreement between reader interest and the type of school news reported can be seen at a glance. In every city of the study except one, there was a negative correlation between the interests of school patrons and the amounts of space allotted in the press to the several topics. Seventy-five per cent of the newspaper space was given to the half of the topics ranked lowest in interest by patrons. Only twenty-five per cent of the space was devoted to the half of the topics rated highest in interest by the patrons.

A careful comparison of the newspapers discloses a consistency in selection of topics for school news. All of them, of course, gave most space to extra-curricular activities, since that topic included school sports. While in all the newspapers no other one topic received exactly the same position in proportion to white space covered, there was little pronounced variation in the positions of the other topics. The agreement between newspapers in amounts of space devoted to the several topics runs as high as a +.91 rank correlation. A large number of rank correlations are above +.80, showing substantial agreement in the reporting policy.

The study points definitely to the failure properly to consider one of the most important factors in the quality of school publicity—the interests of those to whom the publicity is chiefly directed. Such neglect of the use of the strongest interest appeals must be due to a faulty conception of the relative strength of the appeals in topics of school news.

The American people ask the educator what they ask every other worker, "What can you do?" It may be said that education centers in the child. The more accurately the school publicist can portray the effects of education upon the child, the more effective his educational interpretation will be.

School publicity has passed the campaign stage, the stage where the administrator goes to the public only when he wants something. It has outgrown the apologetic stage, the stage where the administrator feels compelled to explain the increasing costs of educational service. There are special occasions upon which the school leaders will feel the need of resorting to both of the aforementioned types of publicity, but a constructive stage of educational interpretation, now beginning in a few cities and states, is pointing to a new ideal of educational interpretation. A permanent, continuous program of educating the public will create confidence in educational service, which is the only basis upon which education will be accepted at large as a profession. This confidence will be built upon a belief that the schools are achieving worthwhile results by efficient, economic methods.

Radio Is Training More and More Children in Music Appreciation

Recent investigations carried on in various cities show that in New York City between 350 and 400 schools have been equipped with radio receiving sets and that more than 200,000 pupils in that city listen in each Friday on the music appreciation hour. The superintendent of schools in Columbus, Kan., reports the entire school system equipped with radios. Similar reports come from Joliet, Ill., Omaha, Neb., and Superior, Wis.

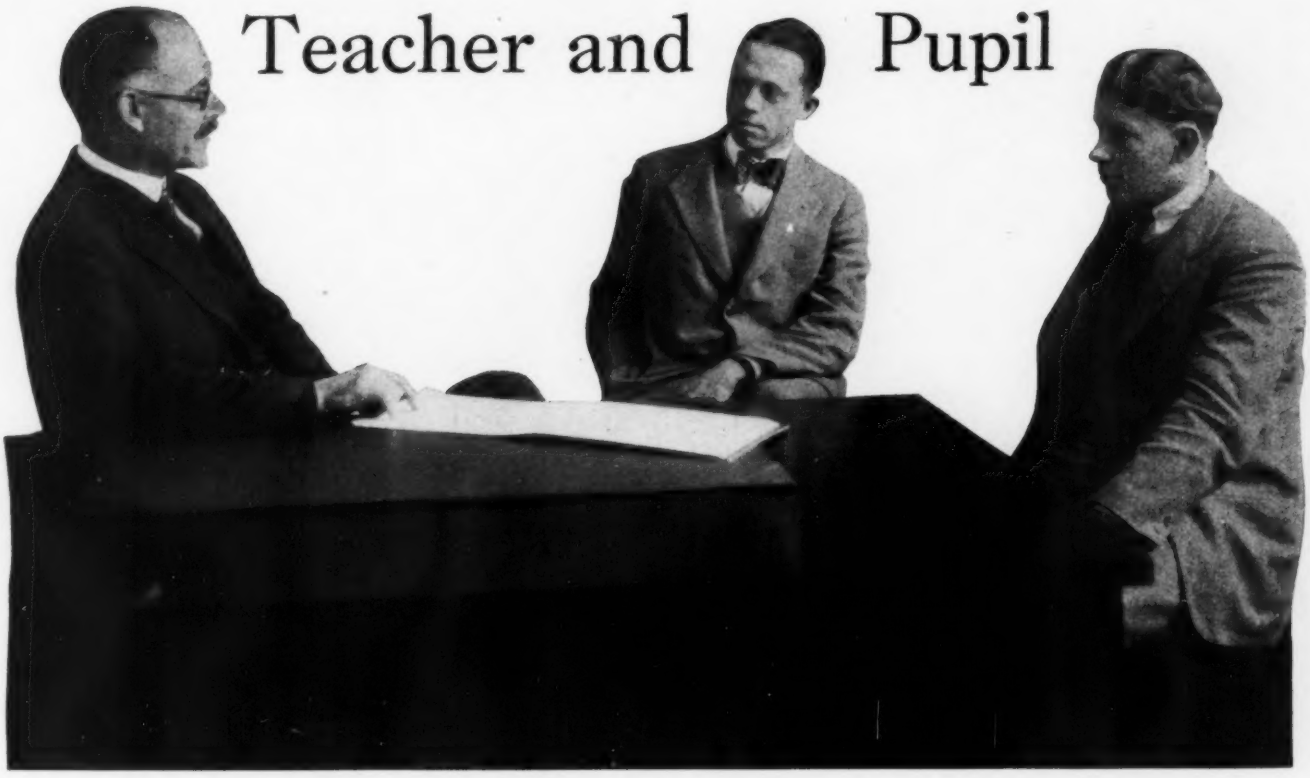
In Nashville, Tenn., forty-two of the city's public schools have radios, and Beaumont, Texas, reports twelve schools fully equipped.

Last year a million and a half children listened in. This year it is estimated that that number has been increased to 5,176,960.

"The concerts will go on next year under the same sponsorship," says Walter Damrosch, who has been largely responsible for the success of the music appreciation hour. "We are confident that by the close of the 1930-1931 season the number of our young listeners will approach ten million. This will mean that nearly half of the school children in the country will be coming into contact with great symphonic music, a situation that would have been looked upon as miraculous only a few years ago.

"The census reports that there are 27,000,000 children attending American schools. Of this number 10,000,000 go to rural schools. Think of reaching such a vast number who formerly had never heard a symphony orchestra. Perhaps it is not too optimistic to hope that with the cooperation of the schools we shall eventually reach the entire 27,000,000."

How the Principal Can Guide Both Teacher and Pupil



By THEODORE HALBERT WILSON, Principal, Saint Johnsbury Academy, Saint Johnsbury, Vt.

THE alert principal will find many ways by which he can improve instruction in his school. Of the numerous possibilities open to him I believe that seven are especially important.

I. The principal can be an educator instead of merely an executive.

He is, of necessity, an executive. He is responsible for seeing that the school runs smoothly; that each of the ever increasing number of extra-curricular activities is wisely directed; that the necessary supplies and equipment are ordered and are available when needed; that the buildings are kept clean and sanitary; that the ventilating system is in repair and is efficiently used, and that the budget is adequate. These and a hundred other details consume an increasingly large amount of time. The principal can easily degenerate into nothing but an administrator.

Unless he is an educator as well as an executive, he will probably devote all his time to details which, though essential, are none the less incidental to his primary responsibility, supervision. The educator is first of all a supervisor, a man of large vision. He sees beyond and above the routine of clerical work and the machinery of school life to the aim and purpose of the educational program. He sees beyond the classroom to the school. And he is ever mindful that a school has, in the last analysis, only one reason for existence—to enable each boy and girl to learn and to learn more efficiently and economically than would be possible if there were no school.

If the principal is to improve instruction he needs to have every part of the school machinery geared up to the point at which each boy and girl learns efficiently and economically. He needs to see that no part of the machinery impedes this learning process and that his own time is devoted primarily to watching and improving the quality of learning. He can and should delegate many details of routine administration to an office secretary, a dean of girls, a dean of boys, the athletic coaches and other members of the teaching staff, as well as to members of the student body, through various forms of student government. He should note the thoroughness with which the pupils do their work, but he will find much of his time free for observation and he should observe and strive to improve the methods of instruction in the school. This is the chief function of the principal. He is the one upon whom the community rightfully relies to make sure that the purpose for which the school is established and maintained is actually effected. He

is more than an executive, he is an educator.

II. The principal can be a student of the philosophy of education instead of merely a holder of a job.

He may be so fortunate as to secure a faculty every member of which does creditable teaching without his advice. All the details of the school life may run so smoothly that he can continue in his position without being detected as a holder of a job instead of a student of education. His apparent success is due either to chance or to the superior ability of those who are associated with him. If instruction is improved, the credit belongs to the teachers and not to the principal.

If, however, the principal is to improve instruction, he must be a student of the philosophy of education. He must realize that as a result of instruction each pupil should acquire habits, skills, automatic responses; knowledge and the ability to use it; attitudes, appreciations and ideals.

The student of the philosophy of education is conscious of these objectives of instruction. He is aware not only of certain remote sociologic objectives, such as good citizenship and vocational competence, but also of immediate objectives, such as the habit of spelling words correctly and multiplying numbers correctly; the skill of cutting two pieces of wood and fitting them together so that they form a 90 degree corner angle; facts, such as that Washington was the first president of the United States and that the freezing point is 32 degrees F.; the ideal of honesty under all circumstances and the attitude of agreeableness at all times.

What Is Instruction?

III. The principal can be a student of the learning process instead of merely a bluffer.

By bluffing I mean doing something that really calls for knowledge or skill when he does not actually possess it. It is possible for a man to go through the motions of conducting a school without actually knowing the processes by which children learn. It is possible for him to purchase a book on classroom technique and to conduct a school by following the ready-made methods therein suggested. The results may be reasonably satisfactory, but such methods are based on what the teacher should do to keep the pupils occupied and orderly rather than on what the pupil must do in order to acquire certain habits, knowledge or attitudes. Instruction is a matter of guiding the pupil as he learns rather than of keeping him out of mischief. The principal who desires to improve instruction therefore needs to know how the pupil learns.

He has made a good start in understanding the learning process when he knows four things about that process:

1. A pupil learns only as he responds to stimuli. Learning is an active affair. A pupil cannot learn by sitting and listening.

2. What the pupil learns depends upon what stimuli he encounters and what responses he makes to them.

3. How thoroughly the pupil learns depends upon how emphatically, emotionally and significantly he responds to a stimulus or upon the number of times he responds in the same way to the same stimuli. In other words, a pupil may learn thoroughly either through shock or through repetition.

4. All learning is probably specific. We cannot be sure that a pupil will transfer his learning from one situation to another unless he is helped to note that certain elements are present and are applicable in both situations.

How a Teacher Should Function

If the principal knows these four simple facts relative to the learning process, he can readily draw four equally simple conclusions relative to the teaching process:

1. The teacher should provide appropriate stimuli. These will at various times be questions, situations, attitudes and problems.

2. The teacher should insist that each pupil respond correctly either immediately or eventually. Whether it is a matter of spelling, idiomatic speech or scientific fact, a wrong response indicates wrong learning. The right response must be given before the pupil can be said to have learned correctly.

3. The teacher should see that each pupil encounters the same stimuli often enough to enable him to form habits or skills, or different stimuli in sufficient numbers to enable him to form ideals or attitudes. In such habit forming subjects as spelling, mathematics and science, the teacher should drill the pupils, while in such attitude forming subjects as biographical studies and economic principles, the teacher should provide a variety of situations.

4. The teacher should see that each pupil recognizes the common elements and applies them. The teacher of Latin may guide his pupils so that they learn the meaning of the preposition "*ex*," and never make a mistake in translating the preposition from Latin into English. But the pupils may go directly from the Latin class to the English class and not be able to analyze such words as "excommunicate," "exhume" and "excuse." The teacher of Latin and the teacher of

English should both help their pupils to carry over into English what they learn in Latin. The teacher of history will find that not all of his pupils will note the application of the principles of a protective tariff or of the Monroe Doctrine unless he specifically calls these matters to their attention. If the pupils are to carry learning over from one subject to another or from one phase to another of the same subject, each teacher should help the pupils see what elements are common and how they apply. The principal who informs himself of the facts of the learning process can improve instruction by helping his teachers understand these facts and employ methods that will enable the pupils to learn.

IV. The principal can be a constructive critic of what teachers and pupils do in the classroom instead of merely a casual observer of classroom procedure.

At teachers' meetings the principal may delegate some administrative responsibility to each member of the faculty.

The principal who looks into classrooms and casually notes that there is no special disturbance, that all the pupils are relatively quiet and that the teacher is evidently "covering the ground" may help preserve good order and improve deportment, but he is not necessarily improving instruction. In order to improve instruction he needs to determine certain things about the activities in the classroom. Is every pupil actually learning or are some merely sitting? He should be interested less in physical quiet than in mental concentration. Are all the pupils mentally alert or are some allowing their minds to wander? Is every pupil evidently learning efficiently and economically or are some forming habits of indolence? Are the pupils all interested?

Is the teacher instructing or is he merely covering assignments? Instruction consists in telling what to do, indicating how to do it and making sure that each pupil does it. The successful football coach knows how to instruct. He knows that the members of the squad have not learned a play merely because they have listened to his description of the play and his directions for executing it. He knows that they must actually go through the motions of the play itself. Instruction in the classroom is successful only when the teacher insists on each pupil knowing what to do, understanding how to do it and doing it.

The principal who improves instruction is the one who makes these constructive criticisms of the activities of pupils and teachers.

V. The principal may be a careful censor of examinations instead of merely a maker of schedules for examinations.

Examinations have a place in school routine only if they serve as an aid to the learning process. They are not essential for any other purpose. The principal who would improve instruction, therefore, will no more leave the teachers to their own devices in the giving of examinations than he will leave them unaided in their daily classroom activities. He will inform himself of the types of tests that are being given. He will have all term or semester examination questions submitted several days in advance of the dates set for the examinations. He will scrutinize the questions for at least four purposes.

Is the examination so constructed that it will enable both the pupil and the teacher to diagnose the pupil's weaknesses and check his achievements, and enable the pupil to learn something new? If instruction is to improve, both the pupil and the teacher must know wherein improvement is needed; the pupil must discover that examinations are a means to further learning.

Is the examination so planned that it will enable the teacher and the principal to determine whether the pupils have formed the desired habits

In the picture above the principal is shown making a brief visit to a class in biology, thus keeping a supervisory eye on the progress of both teacher and pupils.

Sometimes the principal remains through an entire class period, as shown in the picture below, when he has an opportunity to observe progress of the individual pupils.

or skills; whether they have acquired the expected knowledge, information and ability to apply the same to varied situations, and the appreciations that were among the goals of the course? In other words, the principal is responsible for seeing that instruction is improved by having each pupil take such examinations as necessitate definiteness of aim, clearness of instruction, thoroughness of drill, and enthusiasm for the subject itself. Is the examination long enough to keep every pupil busy the entire allotted time? Is it short enough to enable the average pupil to complete it with a reasonable degree of satisfactoriness and the brilliant pupil to complete it with superb attention to details? Does it indicate that the teacher has regularly recognized individual differences among the pupils and is consciously endeavoring to ascertain whether the brighter and the more rapid pupils are doing the type of work they can and should do?

Finally, is the examination valid, reliable and relatively objective? Will it test what it is intended to test? Will it accurately test whatever it does test? And will it check any personal bias the teacher may have? Is the wording of the questions foolproof and free from all trickiness, so that even the most obtuse pupil will at least know just what the teacher means?

This sort of careful scrutiny of examinations in major subjects is of great importance if the principal seeks to improve instruction.

Why the Marking System Is Useful

VI. The principal may be an intelligent interpreter of marks instead of merely a collector and dispenser of them.

Marks are intended to indicate the approximate extent of the pupil's achievements. They may be used merely for the purpose of giving to the pupil and to his parents a general notion of the quality of work the pupil has been doing over a period of a month or six weeks or a term. Such use may perhaps justify the labor involved in preparing and recording marks. But a far more important reason for the continuance of the marking system is its practical usefulness in improving instruction. The principal who seeks to improve instruction will at frequent intervals study the marks of individual pupils and compare the marks of individual teachers with those of all the teachers.

If the marks of a pupil vary widely from month to month, the principal will not jump at hasty conclusions as to the variation in teaching efficiency; he will investigate so as to ascertain from the pupil and the teacher and from personal observation of both in the classroom whether the instruction is faulty, whether the pupil's interest and attention have lessened or whether some other element has entered into the situation. He may find that a new subject, one that is usually troublesome for some pupils, has been taken up. If so, perhaps the teacher has not gone slowly enough or has not been sufficiently lucid in her explanations; perhaps the pupil has not yet taken an interest in the new subject. He may find that the pupil has been experiencing some great sorrow or indulging too freely in social or athletic activities. At any rate, he will analyze the situation to discover if possible why the learning is less satisfactory some months than other months. When he discovers the causes, he will seek to have pupil, teacher and parents cooperate in an endeavor to keep the learning up to higher levels.

How Teachers Mark

The principal is equally concerned to know whether some teachers are consistently high markers and others consistently low markers. If so, are some teachers exceptionally able and others pathetically incapable? Are some "easy" and others "hard"? Do some have an unusually large number of brilliant pupils and others an oversupply of subnormal pupils? Do some give high marks to pupils who receive low marks from other teachers? Why? Does the honor mark represent the same degree of learning success throughout the school? Does the failing mark indicate the same qualitative deficiency throughout the institution? If not, how can the principal secure the cooperation of every member of the faculty to make marks really signify approximately the same things?

VII. The principal may be a tactful counselor of teachers instead of merely a maker and unmaker of faculties.

Choosing the members of a faculty is one of the items of prime importance in securing satisfactory instruction. A principal can improve instruction by getting and keeping teachers of superior personality, professional knowledge and vocational skill and devotion and by judiciously dismissing teachers who demonstrate their inability to measure up to the high standards of success set for the school. One inefficient teacher is a serious handicap to instruction throughout the entire school.

But the principal's part in the improvement of instruction by no means stops after he has removed unsatisfactory teachers and secured satisfactory ones. His greatest service to the improvement of instruction is the counsel that he gives to the teachers, the pupils and the parents throughout the school year.

The advice to pupils and to parents will have to do primarily with habits of study and life in and out of school and attitudes toward study and toward life and school as a part of life. It will be given in assembly, in small groups and in private conference. It will be given by word of mouth as well as by printed document and typewritten letter.

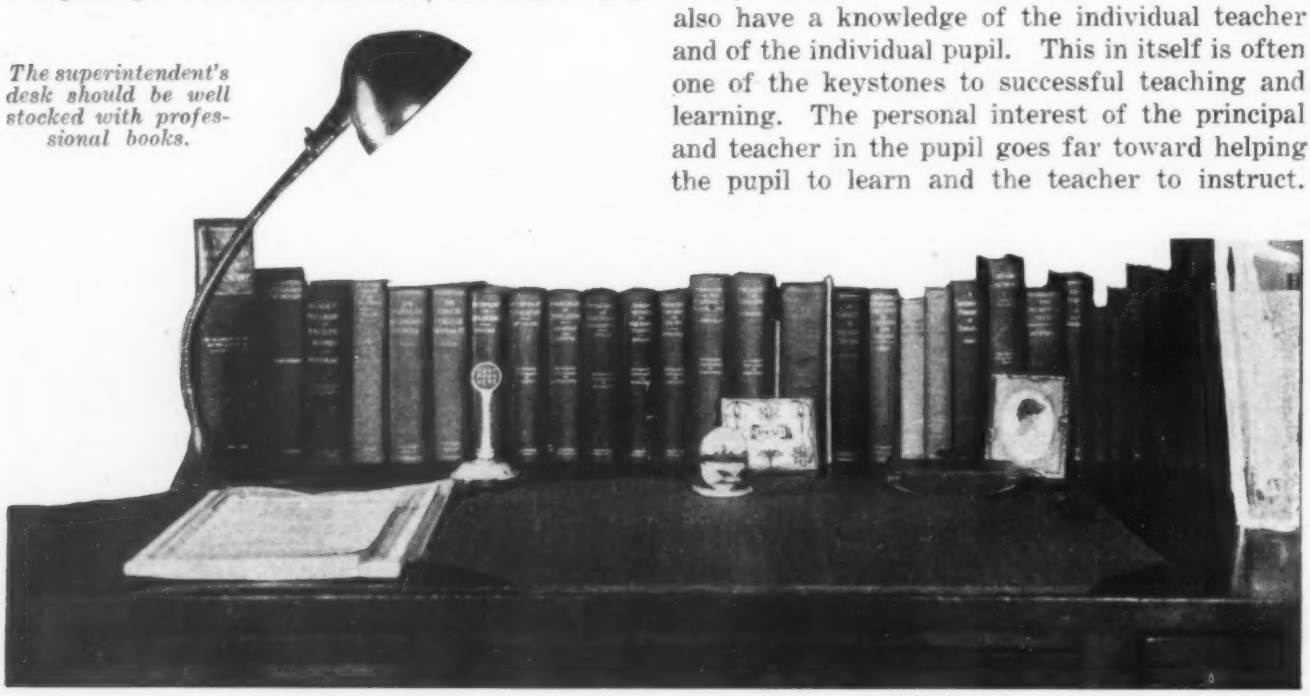
Advising the Teachers

The advice to teachers will be of two kinds, general and specific. The general counsel will be given largely through a discreet use of faculty meetings for purposes of study and discussion of such topics as the learning process; the teaching process—motivation, assignments, training in association, habit formation, generalization, reflective thinking and appreciation; ultimate and proximate aims; objectives of education and the functions of secondary education. The principal will keep informed regarding new books and articles in the field of education, especially secondary education, and will tell the teachers about those that will be of especial interest to them. He will be a resident instructor in education, offering to the teachers extension courses in different phases of secondary education.

The principal who desires to improve instruction will give specific counsel as well as general advice. He will have personal conferences with each teacher, complimenting each for his excellences and offering practical suggestions to each for overcoming his deficiencies. He will suggest ways for improving instruction whenever the teacher recognizes his incompetence and whenever the principal detects a weakness, whether it is a matter of discipline, motivation, habit formation, the acquisition of ideals or some other detail. When he finds that a pupil has a wrong attitude toward a teacher, he will bring teacher and pupil together for a conference. When he discovers that a pupil is failing to do as well as had been expected, he will try to analyze the cause of failure and aid the teacher in devising some method for helping the pupil overcome the difficulty, or he will explain to the teacher that the pupil is laboring under a handicap that cannot be immediately overcome but can be sympathetically understood. He may discover that the pupil is suffering from some emotional disturbance, from some physical impediment or from some other obstacle, such as overwork, lack of mental capacity or excessive participation in extra-curricular activities. Whatever he discovers, he will counsel the teacher and advise the pupil and the parents with a view to improving the instruction by the teacher and the learning by the pupil.

The principal will confer with the teachers on the wording, order and nature of examination questions; on teaching pupils how to study each subject; on helping pupils after school; on insisting that pupils rewrite papers that are untidy, and on a thousand and one other specific details of school life.

Occasionally such counsel may not be accepted in the spirit in which it is given, but usually it will be so accepted, and it will bear fruit tenfold. It is one of the most valuable contributions that the principal can make to the improvement of instruction. It makes it necessary for the principal to be familiar with the purposes, principles and practices of the learning process. He must also have a knowledge of the individual teacher and of the individual pupil. This in itself is often one of the keystones to successful teaching and learning. The personal interest of the principal and teacher in the pupil goes far toward helping the pupil to learn and the teacher to instruct.



The superintendent's desk should be well stocked with professional books.

Promoting Friendliness in School Relationships*

The educational system can thrive only in proportion to the measure of mutual friendliness and cooperation that is maintained between the superintendent and his teachers

By SUSAN M. DORSEY, Superintendent Emeritus, Los Angeles Public Schools, Los Angeles

THE recent growth of the social concept in public education indicates an awakening to the real significance of the schools in a land such as ours and an understanding of what should be the first function of education in any land, namely, the increasing of the well-being of all.

Not for themselves alone but for the betterment of all are young persons to-day equipped with the tools of learning and enriched with the choice offerings of curricula that are weighted with the knowledge of the ages. The world has its face firmly set in the direction of friendliness and the only education worthy to be fostered in such a world is one that contributes to living well the cooperative life.

The Creed of the Schools

The schools are adjusting their offerings more perfectly than ever before to this new interpretation of their function. They have expressed themselves in what amounts to a creed, saying, "We must educate for health, the health of the group and the individual. We must educate for the business and industry of life, so that a living may be had by all and existence robbed of the pains of uncertainty. We must educate for the larger life of the community, so that youth shall know its part in the civic program and be ready for social service. We must educate for the home, so that it too may become a school of the humanities. We must educate for the highest issues of life, those that enlarge human nature by allying it to the great principles of noble living that have brought us thus far in civilization and will still lead us on." You may call this "ethics" or what you will; at any rate, it is good citizenship. In all these objectives that the schools have adopted as their creed, there is nothing selfish or futile, but a frank recognition of their responsibility to equip young men and young women to live successfully as social beings.

To attain such an ideal, that which is taught must have a social content and it must be taught through activities and under procedures that constitute a social environment and include the entire personnel of the system, even the superintendent and the board of education.

We ourselves do not see clearly the social significance of the subjects taught, the larger reach of individual activities and their actual and possible contributions to the cooperative, friendly life. The very general introduction of the hot lunch into the public schools has a social bearing not often followed to its ultimate issues. As a safety measure, it lessens the risks to school children, since it relieves the day of two exposures to traffic dangers by cutting out two street trips. As a health measure, it permits the guidance of diet in a wholesome way. As a social service measure, it relieves the overburdened mother, who is perhaps forced to earn the living for the family outside of the home. As an educational measure, it makes possible the inculcation of habits of good breeding and gentility. One school in a foreign district has carried out the simple details of courteous behavior during the period of the school lunch in so kindly, so educative a way, that the living of the whole community has been influenced most favorably.

Preparing for the Cooperative Life

Work out for yourselves the social implications of a single subject as it is now taught, and those of the school playground, the school clinic or the varied clubs so prevalent, especially in the junior high school, and you will find that the tendencies are to recognize the function of public education as primarily that of promoting and interpreting experiences that prepare for the cooperative, friendly group life. Surely the superintendent, who is to engineer this great project of education, must be himself the finest exemplar of the friendly spirit.

This paper is an attempt to interpret the

*Read at the meeting of the Department of Superintendence of the National Education Association, Atlantic City, February 22-27.

friendly aspect of the relationships between the superintendent and his teachers. These relationships are, first of all, professional, for without the school there would be neither teacher nor superintendent. Neither would there be a profession of teaching. The friendliness between the teachers and the superintendent will therefore have its legitimate basis in a common interest in their professional work, which is their particular type of cooperative undertaking.

A factitious attempt at friendliness that does not grow naturally out of the normal professional relationship will be found insincere and shallow, and will soon become embarrassing and end in disillusion and unhappiness. Any attempt at friendliness that has in the mind of either teacher or superintendent any ulterior motive, a pretense of interest on the part of a teacher because she expects to profit thereby in ease of assignment or in early promotion or a pretense of friendship for his teachers on the part of a superintendent who hopes to use their solidarity as a backing for some pet project or for his own advancement is an ugly sham, hateful to those who recognize that the relationships between superintendent and teachers should grow out of a common professional interest and that the only appropriate friendship is that which contributes to the success of their common enterprise.

For a superintendent to be anything but cooperative and friendly with teachers is incongruous, because the teacher long antedated the superintendent. In fact the superintendent was ordained for the one purpose of aiding the teacher by relieving her of various details not of an instructional character, so that she might the more completely devote herself to the real business of teaching.

The Helpful Spirit

By what right, then, may a superintendent fail in his specific task of helpfulness to the teacher? How can he perform that task if his attitude toward those he is set to help is indifferent or autocratic? Such an attitude is bound to create on the part of the teacher reciprocal indifference, dislike, passive resistance or active opposition.

How may a superintendent show a friendly spirit? Knowing that it is his business to clear the way for the work of his teachers, he should take a genuine interest in seeing that no teacher's assignment is in itself too taxing and he should not make impossible demands on her. He should secure an environment for the teacher that will in itself promote the success of her work. Light and air and a fair degree of quiet and freedom from interruptions are essential. The indescribable noises, the blinding glares and the vicious odors often found in cities, are as harmful to teachers as to children. Many a teacher has had to face the light constantly from a slit of a window perched at the rear of the room. Perhaps care had been taken properly to light the children's desks, but the teacher's welfare did not count.

It is a friendly thing for a superintendent to observe conditions as he moves about from school to school and to note whether teachers are comfortably environed. It is not fair to the teacher to delay the delivery of essential supplies for two weeks after her stock has been exhausted. There is no finer evidence of friendship for teachers than the correction of such abuses by a superintendent. In a word, a sincere and friendly interest in his teachers on the part of a superintendent may be shown in efforts to mitigate all manner of disturbing nuisances that prevent her from accomplishing her best work.

The Right Sort of Friendship

A second indication of the right sort of friendship is evidenced in the help given to teachers in their efforts to improve their understanding of the subjects to be taught and to master new and better ways of teaching. In towns and smaller cities, the superintendent himself must be in large measure the inspiration, the interpreter and the instructor of his own teachers. In larger cities the superintendent has, of course, the assistance of supervisors, but he also has the problem of guiding the work of supervisors so that it shall not become a perfunctory performance, a mere critic-teacher exercise, a cold, heartless evaluation of instruction with small effort made toward the illumination of a subject to be taught and the best ways of teaching. Whether the superintendent himself must bring to teachers the help they need in learning how to enlighten instruction, to adapt education to the community and to supplement instruction with appropriate activities, or whether he must direct the work of supervisors to that end, there is no finer opportunity for the cultivation of friendly relations between superintendent and teachers than for the superintendent to give actual help along the lines of immediate work.

A friendly superintendent will encourage his teachers to improve themselves, to enlarge their personality through further study. Never was there more need than there is now for teachers to extend the bounds of their own scholarly attainments, for the great accessions of knowledge in the last few years exceed in volume anything the world has ever experienced. It is a time

when the solid earth is found to be composed of electrical energy; when infinity itself, encircling the heavens, seems to have been discovered by man; when applied science resuscitates human life; when economics devises a world bank; when the voice of a king, even while he speaks, encircles the globe.

Teachers must know, and superintendents in a spirit of friendly interest should magnify their responsibility for seeing that no teacher with aspirations to learn is left without the means for improvement so far as guidance can be proffered and so far as the resources of the system permit. Teachers would many times avail themselves of extension courses, lectures and varied cultural opportunities if a little effort were taken to help them secure these advantages or if they knew what was surely worth while. Sometimes the reading of a single book on the suggestion of the superintendent may serve to enlarge the outlook, vivify school experiences and integrate the whole system.

A convincing evidence of a friendly spirit based on the recognition of teacher ability is some kind of an arrangement by which representatives from all the teacher groups meet with the superintendent at stated times to discuss school problems. The idea that teachers are inadequate to advise on matters of administration is, or ought to be, antiquated. It overlooks the fact that once the teacher constituted the entire staff—teacher, administrator and all. Nothing promotes a cooperative spirit more surely than an implied demand on the part of the superintendent that all school problems should be solved in the light of contributions from the entire school group as they counsel together. These contacts in the superintendent's advisory council are the most conducive of all to a general understanding and a spirit of good will.

Magnifying Teacher Service

A friendly spirit will lead the superintendent to open the way, when possible, for teachers to attend great meetings, the national gatherings of their own groups and such conferences as that held in Geneva last summer; a friendly spirit will lead the superintendent to stay at home himself on occasion and suggest to the board of education the sending of another when transportation funds are difficult to acquire.

It is an evidence of a friendly spirit for the superintendent to show an interest in questions of salary, tenure, retirement, and all those matters that make for the betterment of teacher service. These are delicate questions. A superintendent must not be expected to array himself in controversial contests against the board of education. The aggressive attitude of some teacher groups who count as their enemy the superintendent who does not harry his board constantly for teacher benefits is most certainly to be deprecated. After all, the superintendent does not make contracts with teachers. That is the responsibility of the board, and those who employ the teachers must in the last analysis determine the question of possible compensation. The superintendent, however, may help greatly through emphasizing the increasing demands on teachers, which require more years of preparation and consequently involve more expense. He may in various ways, without even seeming to do so, magnify teacher service.

Encouraging the Teachers

Superintendents are constantly beset with experiences that tend to make them sensitive to costs, and no single item of cost mounts so rapidly as teachers' salaries, which always bulk large in the total of school expenditures. In any event, a sincere interest in all matters that seriously affect the well-being and power of accomplishment of teachers will lead the superintendent to keep informed and to have an opinion based on knowledge of conditions if his opinion should be needed in determining issues of salary, tenure, retirement, sabbatical year, sick leave and the like. To hold himself aloof from matters that vitally affect the health, happiness and success of teachers is not an indication of a friendly attitude.

In a large teacher group there are many occurrences of joy or of sorrow that call for some notice on the part of the superintendent. There are exceptional cases of endeavor and achievement. A teacher's poem or article is accepted by a magazine of reputation, a prize won for the best development of some subject, for a work of art or for a musical composition—all these are opportunities for a friendly recognition by the superintendent of a teacher's contribution to the good reputation of the system. They afford admirable opportunities for the superintendent to show a human interest in his teachers and to enlarge the circle of his friendly acquaintances. These are occasions when the solidarity of the group may be strengthened delightfully and effectively.

The most kindly disposed superintendent of himself cannot achieve the friendly spirit in school relationships. Teachers must do their part. They need to adopt approvingly the social concept of education. They must stand ready to make their contribution in reciprocal helpfulness

toward the common undertaking, even though it may require an occasional change of attitude and constant readjustments of instruction, activities and school relationships. Inflexibility and growth cannot coexist. Education is expanding. Teachers and superintendents alike will do well to be observant, flexible of mind and ready to make adaptations in order to meet the needs of a growing civilization that must have a friendly world for its ultimate realization.

Perhaps it is not too much to say that on public education rests the supreme responsibiliy of making and keeping the world friendly. To accomplish this, education must provide instruction and varied experiences in social living to a far greater degree than at present. And a friendly spirit must pervade all school relationships.

The Ideal Personnel Organization of the Superintendent's Office

What is the ideal personnel organization of the superintendent's office?

According to a study made recently by a committee of Pennsylvania educators, the ideal personnel organization has as its head a superintendent of schools who qualifies as a director of learning. Through experience and training he must know the elementary, the secondary and the special fields of education. He cannot direct the learning process or improve instruction if he is not a successful teacher himself. He must be a master of details but not a victim of details; and he is not a wise executive if he builds the organization around himself in such a manner that his sudden withdrawal would wreck his system.

Buildings, equipment, supplies and finances have a direct relationship to the process of instruction. While no considerable portion of the superintendent's time and vitality should be consumed with details relating to these agencies their administration should be in charge of officers who are responsible to the board through the superintendent's office. A reasonable amount of professional control in these matters by the superintendent is essential. The so-called dual control of school systems has not proved satisfactory.

Members of the board of school directors should not consider themselves a part of the personnel organization for the improvement of instruction. Back seat driving is a frequent cause of educational skidding.

Capable full time supervising principals with adequate clerical help should be provided for each group of thirty teachers and 1,000 pupils. The principal should function as the "principal teacher" and not as a mere captain of police.

Cities of 30,000 and upward should have the services of a trained research director, working under the direct authority of the superintendent of schools. His responsibility will include a complete testing program, special testing assignments and curriculum construction and revision.

A simplified rating system for teachers with some practical recognition of merit is an effective means of improving instruction. This rating should be given by the supervising principal and approved by the superintendent. It is important that the teacher know her rating and have an opportunity to discuss with the principal his evalutaion of her work.

In cities of 30,000 population and upward the personnel of the superintendent's staff should include a director of health, a director of vocational education, a director of art, and a director of music. Conflict of authority between these directors and the principals is wholly unnecessary if it is understood that the director is a member of the superintendent's staff, employed because of her skill in a special field of knowledge.

Supplementary to the regular organization a consultative service in the supervision of instruction given by some qualified outside agency is recommended as a stimulus to the superintendent as well as his corps.

A permanent organization of committees for curriculum construction and revision directed by the superintendent is one of the most effective agencies for improving instruction. We use the term curriculum here in its broad sense, including method (general and special), objectives (ultimate and immediate) and the psychology of the learning process as well as the content of the course of study.

Brown Chosen as Stock Color for School Furniture

Brown has been selected as the color for stock varieties of school furniture, according to the division of simplified practice, U. S. Bureau of Standards. It is expected that the industry will conform as closely as possible to the median shade, although any shade of brown within the limits of light and dark will be considered as conforming to the requirements. The recommendation applies to pupils' desks, teachers' desks, movable desks, recitation seats, chairs, tablet arm chairs, tables, typewriter tables, library furniture, filing cabinets, bookcases, kindergarten tables and chairs and laboratory furniture.

A class of boys at work in a general metal shop.

Are Shop Courses in the Junior High School of Practical Value?

Results of a recent investigation emphasize the need for a reorganization of industrial arts courses if they are to prepare pupils for later vocational activities

By W. H. STONE, Director, Vocational Guidance, West Allis High School, West Allis, Wis.

EDUCATORS have made many claims that the junior high school years are the years in which a pupil should be given opportunities to discover his interests, aptitudes and capacities. They maintain that the junior high school is or should be divested of the formal education of the past and should be organized to provide contacts and experiences that will offer to the individual opportunities to discover for himself his own abilities.

Even the casual reader of junior high school literature cannot fail to see that the self-finding objective stands out preeminently in the minds of the sponsors of this new type of school organization. We cannot here summarize these claims but will simply refer those who are interested to the works of Koos, Meyers and Briggs.

Courses in the junior high school bearing the prefix of "general" are further testimony that the broadening of the scope of the courses in the junior high school is receiving attention from administrators and teachers. The terms, "exploratory" and "finding," have also been used extensively in connection with junior high school courses of study. In view of the fact that educators in the past have fallen into the error of making claims for certain types of education, assuming that the claimed values automatically follow, one cannot help wondering if modern educators are not too willing to follow in the steps of their predecessors. One who refuses to accept claims that cannot be justified by objective evidence will be likely to ask a few questions concerning the values that are claimed for junior high

school explanatory, general or finding courses.

Are junior high school courses organized and conducted in such a manner as to discover the interests, aptitudes and capacities of each pupil? Do the courses give the pupil a real picture of the industrial, social and economic life of the world in which he is soon to take his place as a citizen? Will the pupil who pursues these courses in the seventh, eighth and ninth years of his school life be enabled to adjust himself better to the life that he is to live than were the boys and girls of past generations? Furthermore, if the pupil is actually being offered opportunities to discover his own capacities, are educators, by making use of the knowledge of the boy as revealed by his school experiences, perfecting methods of assisting him to develop his capacities and abilities and to allocate himself in life so that he may receive a maximum of reward for himself in material things, in contentment and in the pleasure of living, and at the same time give to society a maximum of service? These questions must be answered satisfactorily or we must cease making our claims.

Objective evidence to justify these claims is almost entirely lacking. The questions we have raised are unanswered. We must answer them satisfactorily or admit that our claims are unjustified. We must devise ways and means of determining whether or not we are attaining our claimed objectives. If we find that we are not, we must reorganize our work in such a manner as to do the thing we set out to do. If we can justify the claims that we have been making we will be able to answer the critics who have long been on the doubtful list.

Investigation Is Necessary

The problem that has been indicated is a large one and involves investigation into the organization and teaching methods of nearly all, if not all of the junior high school courses of study. Who is better qualified to perform the task than the teachers who are responsible for the organization and teaching of the junior high school subjects, since it is they who are most familiar with the details of the work as it is now being conducted? Teachers must be willing to question the effectiveness of their teaching methods and the values of the subject content and to devise ways and means of measuring outcomes in terms of other values than mere knowledge of subject matter.

As one who has been teaching junior high school boys in industrial arts for nineteen years, I am attempting to determine whether or not the junior high school shop courses are functioning in the matter of assisting boys to prepare themselves for their later vocational activities. It should be noted that this is but a small phase of the larger problem. It should also be borne in mind that there are perhaps other worth while objectives of junior high school industrial arts. This investigation is directed specifically toward checking up on the attainment of one objective of one junior high school subject. Furthermore, it may be that the method followed is not one that is certain to do the thing we propose to do.

Questionnaire Method Used

The investigation followed the questionnaire method. An attempt was made to find an answer to three main queries:

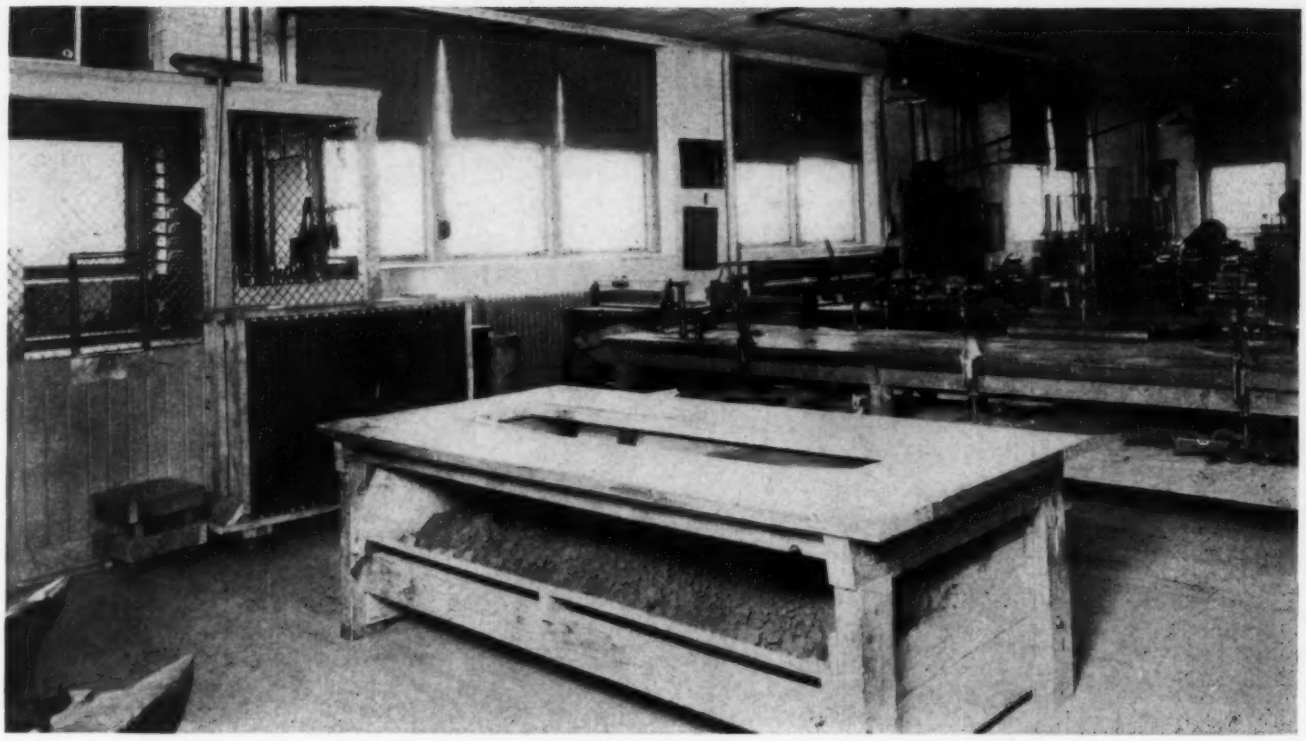
1. Do junior high school industrial arts courses actually explore the occupational fields that they aim to explore?
2. Are the courses organized and conducted with a view to discovering special aptitudes, interests and capacities?
3. What use is made of the knowledge of the pupil and his abilities as revealed by the exploratory courses?

The first page of the questionnaire, which was designed to find out what courses are offered and what objectives have been set up by the industrial arts teachers, might be considered to constitute a fourth query: Have the industrial arts teachers themselves had in mind the exploratory function of shop courses when determining what courses are to be offered? We shall consider this, however, as a phase of the first query.

The questionnaire was sent to thirty-five schools in Wisconsin. The list of schools was supplied by the state department of education as a complete list of schools within the state that are maintaining some type of junior high school organization. It was also sent to ten other schools in seven other states. These schools were listed by the North Central Association as being schools that maintain a 6-6 or a 6-3-3 type of school organization.

Fourteen of the thirty-five schools in Wisconsin and ten of the schools in other states responded to the questionnaire.

Of the twenty-one that returned questionnaires, twelve stated objectives. From this it appears that about 57 per cent of the schools have not given sufficient thought to the reasons for teaching industrial arts to formulate objectives. This percentage is cut down slightly by two schools that wrote that they either considered other objectives as more important than occupational exploration or that they definitely considered occupational exploration not to be an objective of



A shop equipped for teaching an exploratory course in metal work.

shop courses given in junior high schools.

A complete analysis of the objectives as stated is not possible in this brief summary of the returns. The following covers the salient points.

What Courses Are Offered

One school gave the seven cardinal principles as the objectives of industrial arts. One stated the objectives in terms of general education, the supervisor who answered the questionnaire stating that he gave little or no consideration to the matter of occupational exploration. Nineteen statements were made under the term "to develop"; thirteen, under the terms to "teach," "instill," "promote," "assist," "create" or "train"; thirteen statements were made under the terms to "give," "provide" or "furnish." A total of fifty-eight statements were made by twelve teachers or supervisors.

The things that it is desired to develop are stated as habits, skills, powers, interests, abilities, appreciations and respects. However, such definite terms as "the language of industry," "commercial practices," "industrial methods," "construction methods" and "knowledge of tools and processes" have some bearing on our problem of occupational exploration.

The following is a brief summary of the objectives as stated:

1. To give the boy an opportunity to learn how to use tools around the home.
2. To develop a good consumer judgment.
3. To offer opportunities for self-expression.
4. To assist boys in discovering their own interests, aptitudes and abilities with respect to the world of occupations.

Only four statements, made by four schools out of the twenty-one, could be included under No. 4. Several statements were made that are included under No. 3. These seemed to have the exploratory objective in mind.

As less than 25 per cent of those who returned questionnaires gave prominent mention to the occupational exploration objective, it appears that the industrial arts teachers and supervisors have either given little or no thought to this objective or do not consider it worth while.

A summary of the courses offered is as follows:

Course	*No. of Schools*	*Percentage*
Woodwork	19	90.54
Drafting	13	61.88
Sheet metal	10	47.60
Electricity	8	38.08
Printing	5	23.80
General metal	4	19.04
Forging	4	19.04
Machine shop	3	14.28
Wood turning	1	4.76
Shop mechanics	1	4.76
Free-hand drawing	1	4.76
Carpentry	1	4.76
Auto mechanics	1	4.76
Brick and cement	1	4.76
Art metal	1	4.76
Iron work	1	4.76

One school reported that it offered no shop work in the junior high school.

These junior high school shop offerings, when considered from the standpoint of exploring the field of mechanical occupations, have greater significance when compared to the number of men employed in the occupations represented by the courses. The following figures show the number of males over ten years of age employed in the four leading woodworking occupations and the five leading metal working occupations in the United States. The figures are taken from the report of the U. S. Census Bureau, 1920.

Woodworkers

Carpenters	892,013
Cabinet makers	48,159
Sawyers	33,800
Coopers	19,060
Semiskilled and unskilled	608,705
Total	1,506,678

Metal Workers

Machinists	934,102
Forge men, hammer men	224,075
Molders	123,688
Boiler makers	80,093
Tinsmiths	76,772
Semiskilled and unskilled	1,472,800
Total	2,911,530

A casual glance at these figures is sufficient to convince one that the woodworking occupations are of much less economic importance in the United States, from the standpoint of the number of workers employed, than are the metal working occupations. Nearly twice as many men are employed as metal workers as are employed as woodworkers. Yet 90 per cent of the schools offer woodworking courses and only 14 per cent offer metal working courses. In fact, only three schools indicated that any sort of data had been taken into consideration in planning the courses. In answer to the question, "How does the occupation rank?" one teacher went so far as to say, "We know but do not consider it."

Condition Needs Remedying

To one who has a strong feeling that the schools should function in helping to fit the pupils into the economic world in which they are to live, the condition seems almost deplorable. In answer to the few critics who scoff at the occupational exploration idea, one would like to ask whether or not they are attaining their objectives to any greater extent than are those who are attempting to attain this all important objective.

In regard to the operations and processes taught and the machines, tools and materials used one must make a comparison of the returns with job and occupational analyses before drawing conclusions. As such analyses are not at hand this cannot be included in this summary. However some of the lists were made from occupational analyses and it is safe to say that all of the lists are inclusive of the most important items. Inasmuch as the returns show that most of the items were checked, it appears that from this standpoint the courses offer real contacts that could well be made to function for the purpose of occupational exploration.

Observations that we may make concerning the responses to the questions asked are:

School shop conditions are only moderately suited for occupational exploration in most cases and in some cases poorly suited.

There is a great deal of indifference on the part of most schools in the matter of equipping the school shop for the purpose of occupational exploration.

Not enough use is made of shop trips and shop visits for the purpose of giving the boys occupational contacts.

Are Special Abilities Being Discovered?

In an attempt to determine whether or not a conscious effort is being made to organize and conduct the class work for the purpose of discovering special abilities of boys, pertinent questions were asked. The idea underneath the question, "Is the course laid out in terms of (1) jobs, (2) processes or (3) activities?" is best expressed by quoting Lewis Gustafson:

"There is need of a wider vision. There is too much of a tendency of shop for the shop's sake and not enough for the boy's sake. The great purpose of industrial arts is to teach certain important and significant elements of civilization—to represent the industrial and mechanical side of our civilization within the school border."

It was thought that this question would reveal whether or not the teachers were conducting shop classes for the shop's sake or for the boy's sake.

Eight of the twenty-one who returned questionnaires did not respond to this question. The checkings made by thirteen on the three items in the question are as follows: jobs, 17; processes, 11; activities, 2.

It is, of course, possible to outline a course in terms of processes and jobs that might function for exploratory purposes if they were conducted with that objective in mind. But if the teacher has the exploratory aim uppermost in his mind it is more than likely that he will be thinking in terms of human activities rather

than in terms of jobs and processes. In fact, it is difficult for one to see just how any of the objectives named by those who responded can be attained if the teacher is conducting the shop for the shop's sake.

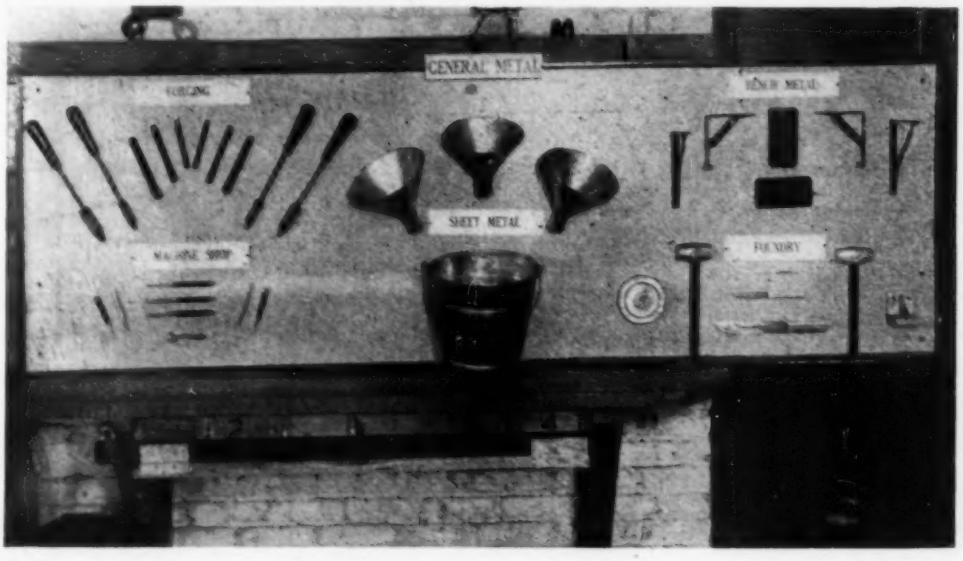
Methods of Teaching Procedure

The question, "What are the methods of teaching procedure?" was asked in an effort to determine to what extent other activities than shop work are utilized by the shop teachers. There is a growing tendency to think of a shop class much in the same terms that the science teachers have been thinking of their classes for many years. The shop periods may be considered laboratory periods in which the pupil is given opportunity to experiment along the lines of the principles learned in the recitation periods. In line with this tendency, some teachers have been giving a little less time to shop work and devoting a little more time to other types of activities.

It is to be regretted that the responses to the questions did not reveal the information desired. Five did not respond and those who did respond did not respond in the manner indicated in the question. Furthermore, about one-half of the responses did not indicate the amount of time spent in shop work. It is therefore impossible from the returns to determine what proportion of time is spent in shop work and what proportion is spent in other ways. There is indication, however, that some of the teachers are giving considerable attention to methods in teaching. The methods, however, do not vary to the extent that they should.

Other questions were asked in an effort to determine to what extent efforts are being made to develop initiative and resourcefulness and also to determine to what extent the schools are attempting to use industrial methods in the matter of giving instruction to the boy in the execution of a job or project. Industry demands of a workman that he be able to follow instructions. Directions for the performance of a job are given to a workman in at least three ways: by word of mouth, by blue prints and drawings and by written job specifications. In addition to this, industry has need of men who are resourceful and who possess initiative. The school shops can meet these needs by the use of job sheets and blue prints and by requiring some planning on the part of the pupil himself. The following answers give some idea as to the extent the schools are meeting these needs: pupil planning—yes, 7; no, 4; no response, 10; job sheets—yes, 9; no, 3; no response, 9; blue prints—yes, 9; no, 2; no response, 10.

It will be noted that nearly half the replies ignored these items. This probably indicates indifference. A little more light is shed on the situation when we look at the following figures which show to what extent more than one of the three methods are used: number using only one method, 3; number using two methods, 7; number using three methods, 7. This indicates a tendency to diversify the method of giving the boy the instruction he needs in the performance of his job. It is a hopeful sign.



Work done by boys in an exploratory course in metal work. The placards on the board indicate the units contained in the course.

Summary of Conclusions

Following is a summary of the tentative conclusions to be drawn from the responses to these questions:

1. Not enough attention is being given to the matter of giving the boy instruction in the execution of his job.

2. Not enough opportunity is given for the pupil to plan his own job.

3. There is a tendency to diversify the method of instructing the boy in the matter of performing his job.

The matter of grouping according to mental ability and the differentiation of the work for the different groups may be passed by with a few words. Seven indicated that such groupings are made, five said that no such groupings are made and nine did not respond. Only three indicated that any effort is being made to differentiate the work for the different groups. Such effort as is being made consists for the most part in the assigning of additional jobs. This matter needs much study and investigation.

We shall now pass to consideration of the third main query: "What use is made of the knowledge of the child and his abilities as revealed by the exploratory courses?" Six of the twenty-one did not respond to this question and six answered negatively. Of the nine responses only four indicated that any effort is being made to keep records, although the remaining five indicated that some effort is being made to give advice to the pupils in the matter of planning their future. As no records are kept, it is more than likely that the performance of a pupil in his shop courses is not taken into account in giving the advice. The condition as revealed by the answers to this question allows but one conclusion. The abilities of a boy as revealed by the shop courses are not being used as a basis on which to advise him in making plans for his future. If the experiences and contacts he receives in the shop classes help him the schools do not know about it. Whether or not the boy himself is conscious of receiving any help is quite another question.

Exploratory Objective Is Lacking

Inasmuch as most of the schools that returned the questionnaire are in Wisconsin, and in view of the fact that most of the larger cities of the state have responded, the results give us a fairly good picture of the conditions in Wisconsin. We may then set down the following tentative conclusions:

1. The exploratory objective receives little or no consideration from teachers and supervisors of industrial arts. The majority of such claims are being made by educational theorists.

2. The shop offerings are not such as to explore fully the occupational field, although the courses that are offered are fairly well organized from the standpoint of including the most important operations, processes, materials and tools of the occupation. The courses, therefore, might well be used for the purpose of occupational exploration. The failure of the courses to function in this respect is due to the indifference of the teachers toward the exploratory objective of the industrial arts.

3. The matter of teaching methods needs more serious consideration on the part of the industrial arts teachers. Better teaching methods might materially aid in making the shop courses function for the purpose of occupational exploration.

4. No records of a boy's abilities as revealed in the shops are being kept to use as a basis for advice and counsel in the forming of his plans for his future nor are any records kept to show whether or not a boy has been in any way benefited by taking the courses. The usual school procedure of leaving the matter to chance is being followed in most of the schools in Wisconsin.

Helping the Pupil Choose a Career

This investigation, although limited in its scope, suggests the problem of devising ways and means of organizing the junior high school industrial arts in such a way as to make them function in the matter of discovering the boy and his abilities and aiding him in the choice of his future career. Even though the industrial arts teachers do not seem to be awake to the possibilities of their classes as instruments for self-discovery, nevertheless educators are more and more insistent that the sorting, finding or exploratory function is one of the most important functions of the junior high school. Industrial arts teachers must not fall into the error of assuming that if they equip a shop and outline a course according to their own preconceived notions of what is needed, certain desirable results will automatically follow. They must experiment with method and organization, check results and be able to show that they have attained the desired objectives.

For those who would like to derive occupational exploratory values from their shop courses the following plan of procedure is suggested:

A reorganization of the industrial arts offerings with these considerations in mind—the economic importance of the occupations that the courses represent from the standpoint of the opportunities they offer for employment; local occupational opportunities.

The perfection of some type of organization for the purpose of discovering and recording special aptitudes and abilities and using these records as a basis for counseling the boy in regard to his future educational and occupational plans.

Should the County Teachers' Institute Be Abandoned?

To restore the institute to the place it once held in educational affairs, this study suggests that it be reorganized along more progressive lines and given a new name

By FREDERICK E. BOLTON, Professor of Education, University of Washington, and THOMAS W. BIBB, President, Albany College, Albany, Ore.[1]

COUNTY teachers' institutes are an old established form of organization for the improvement of teachers in service and for more than half a century they have followed traditional plans.

In spite of the criticism of their apparent ineffectiveness that has been made during the last half of this period, there has been little change in their organization. Superintendents continue to employ mainly outside "talent" to lecture the heterogeneous group. The greater the number of jokes the lecturer perpetrates, the better the younger teachers like him. The success of the institute is generally measured by the amount of amusement provided. It is the exceptional county superintendent who really provides a theme or plan for the institute, who makes a contribution himself and who, through leadership, secures effective cooperation from his teachers.

Early Institute Activities

It is hoped that this article will start constructive discussion of this expensive phase of in-service teacher improvement. Many educators feel that unless the county teachers' institute can make a greater contribution to the cause of better teaching, it should be abandoned and the expense saved.

Much more is involved in conducting a teachers' institute than is generally supposed. A number of questions must be settled in the mind of the superintendent as he plans his annual institute. He asks himself: "What sort of program shall I have? Whom shall I get to conduct the program? When shall I have it? How long shall it be? How much money do I have to spend on it? Is the money well spent?"

The answer to the first question centers around the purpose of the institute. The program should be such that it contributes definitely toward the objectives desired. Perhaps we shall arrive at an answer to this question more easily if we can state some of the varied aims with which institutes have been concerned in the past.

In Washington the early teachers' institutes had the avowed purpose of establishing uniformity of textbooks throughout the territory. Copies of programs of some of these early gatherings, which were conducted as territorial institutes, have been obtained, the theme of which was textbook uniformity. County institutes were organized having the same object. Later the aim centered around the passing of good school laws. In the two decades following the Civil War, a number of institutes were held which based almost the entire discussion on the revision of the school law. In fact, the greatest law ever passed in the state, that of 1877, was written almost entirely at a teachers' institute. This was a worthy aim, and justified the existence of the institute.

A little later, however, the institutes took on another purpose, that of refining the methods of teaching. Even prior to the establishment of normal schools in the state, counties held normal institutes, some of which remained in session ten days. Such institutes were of great importance. Young educators were trained in teaching method; they learned to meet the practical problems that daily confronted them in their schools.

A Training Course for Teachers

At the present time, much of this latter purpose has been retained. Other types of teachers' organizations have taken over the duty of evolving school laws. The normal schools and teachers' colleges have assumed the functions of training in teaching methods, ostensibly the office of the teachers' institute. Yet the institute still has this aim, and it is especially noteworthy in those states where there are many schools taught by teachers who have not had the advantages of a normal school or college education.

[1] President Bibb was for several years county superintendent of schools for Grays Harbor County, Washington.

In answer to the question, "What is the nature of your institute program?" we have received a number of interesting replies from superintendents scattered throughout the country. Some of the objectives indicated are: round tables; observation; group meetings; school administration and standardized tests; discussion of teaching method; demonstrations; one subject is discussed; general topics; lectures; varied; educational; helps for teachers; inspirational; half instructional, half inspirational.

New Objectives Needed

This portrays cross section of the institutes as they are conducted throughout the entire country. Two direct aims are shown in the foregoing list, that of improving the teacher's technique, and that of inspiration. Of the former there are several distinct methods of attacking the problem, such as observation, demonstrations, discussions and lectures.

If the teachers' institute is to be salvaged and made effective, new objectives must be set up. The following are suggested as definite aims, the attainment of which would infuse into the institute new life and vigor. The list is not final or exhaustive, but it is believed that if definitely visioned and persistently followed these objectives would make the institute far more valuable than it is under the present indefinite and nebulous plans of so many institutes.

Inspirational aims: a better attitude toward children; a better attitude toward the community; an increased belief in the teaching profession; the growth of the feeling of contentment in service; a new spirit of patriotism; a setting up of worthy objectives; growth of the spirit and ability to direct youth toward spiritual and material advancement.

Practical aims: better teaching of various subjects; methods of reaching into the community; better service in extra-curricular activities.

Many young persons who go into the teaching profession are prone to minimize its importance. The teachers' institute ought to inspire the teacher with an increased belief in the profession. This new attitude should make itself felt in the teacher's relation to his fellow teachers, to the public and to the children. The teaching profession will never occupy the social and economic place that it should, if the teachers themselves do not believe in it. One reason why the professions of law and medicine are well paid and hold a high social distinction is the attitude the members have toward their profession. The same should be true of teaching. This, however, can be brought about only as teachers themselves assume the right sort of attitude. It is not only a privilege but also an obligation on the part of the leaders in the profession to inculcate it in the minds of the teachers. The teachers' institute is a proper channel through which this may be brought about.

One of the greatest inspirational aims of the teachers' institute is to inculcate a finer spirit of patriotism in the minds of teachers. Since the World War, there has been a radical school of individuals which believes it is the inherent right of a citizen to break the law if he sees fit. Much is being published in newspapers and magazines which leads one to believe that the spirit of patriotism is more or less on the wane. Patriotism means good citizenship. Good citizenship means respect for law and order. The good teacher should respect the law and should stand for order in our social life. That is a fundamental principle of education. It is the part of wisdom for the county superintendent to plan a part of his program so that the teachers will be encouraged to carry back to their pupils and to the community this new spirit of patriotism.

If patriotism, which stands for freedom and justice, is to mean as much to the welfare of the country in the future as it has in the past, it will have to be preserved by some of our present day institutions, such as the church, the school, the lodge, the grange, the social service club and other similar organizations. There is no time in the life of an individual when character can be formed as readily as during the time of youth. Hence, the teaching of patriotism falls largely upon the school system, and in order to teach it the teachers must be charged with its spirit.

The Vocational Guidance Aim

One other inspirational objective of the teachers' institute should be to arouse in the teacher a realization of her opportunity and duty to direct youth toward spiritual and material advancement. A teacher should have sufficient knowledge of the various vocations to be able to advise and help a pupil choose his life's work. To do this, it is necessary for her to be somewhat acquainted with the use of various types of mental tests that could be used to advantage if used with caution. By the time the child is in the seventh grade he should begin to demonstrate ability along some particular line. One child will show evidence of great musical talent. Another will do commendable work in art. Another will show skill in writing. Others will give evidence of having little special talent. These demonstrations of early ability should lead the teacher on a tour of investigation that might be highly beneficial to the

child in the future. The teacher should be willing to do this. It is when children are young that their lives are often broken. A word of encouragement and a little help at the right moment are worth a great deal in the life of a child.

Spiritually there is no less opportunity for the teacher to be of special service. Character education should begin early in the child's life, and every teacher should acquaint herself with the special investigations that have been made in character education. This very properly enters into the problem of discipline. Many teachers do not take cognizance of this fact, and too many disciplinary measures ignore it entirely. Children quite often need to follow the lead of some individual rather than to be forced.

Better Teaching Methods

The inspirational aims that have just been discussed should be the chief part of the program.

There can be no greater practical aim than better teaching of various subjects. If we should start out to find the one hundred per cent teacher, we should have difficulty in finding her. But there is no reason why we should not have many one hundred per cent teachers. This might well be a goal toward which we should work. To attain it, however, it is necessary that we continually better the teaching process. Recent efforts to improve educational procedure have been largely in the realm of better teaching method. Thousands of experiments have been carried on in the universities throughout the entire world, and millions of dollars have been spent upon this one objective alone. If individuals are willing to dedicate their entire lives to the problem, and universities are willing to spend large sums of money to bring about better teaching methods, it is clear that each teacher must do her share in trying to reach this goal. It is urged, therefore, that the first and greatest practical aim of the teachers' institute should be better teaching.

Another practical aim is that of devising new and novel methods of reaching into the community. The institute is important in helping in a practical way to do this. It gives the teacher an opportunity to discuss her problems with leaders who are able often to give her definite assistance.

As a concluding practical aim, we may list better service in extra-curricular activities. These have become an essential part of the modern school. No school would thrive unless definite attention were paid to extra-curricular activities. There is the example of the principal who, although he was a splendid classroom teacher, was not succeeding in his school because he did not have a conception of the value of extra-curricular activities. In the modern school this value is great, but the teacher often needs practical help in carrying out her program. Just what type of activities should each school have? That depends upon the number of children, their tastes, the community, the equipment of the school, the climate and many other factors, and it is only by a thorough study of the situation that the best combination may be found. This is a necessary part of the institute program.

The practical uses of extra-curricular activities may be brought before the institute in a variety of ways. The county superintendent should initiate consideration by a talk outlining the aims, objectives and possibilities in education through such activities. He should then have a general discussion and afford opportunity for questions. Committees should be appointed to organize the county into an association or into districts. If such has been done previously the committees should be prepared to make reports on what has been accomplished, with recommendations for future activities. A generous place on the program should be reserved for this.

Various schools in the county should give demonstrations of their work in music, including chorus, orchestra and band. Exhibition drills in gymnastics, dancing and various other phases of physical training would prove entertaining and instructive. A football or baseball game between two schools could easily be arranged to liven up the afternoon on one of the institute days. Declamations, orations, debates and extemporaneous speaking by the pupils would enlist the interest of the pupils and the patrons and would instruct the teachers as well. Demonstrations in fruit canning, soil testing and stock judging would bring out the patrons, stimulate the interest of the pupils and supply the teachers with practical illustrations of the correlation of the schools with community life.

Improving the Institute

Many excellent suggestions have been made for the improvement of the institute. Harold S. Tuttle[1] proposed a plan of college credit for institute courses, with provisions for continuous self-improvement as a part of the program. That is, university credit should be given for the work conducted, as is done in the case of extension courses. J. E. Reynolds[2] recommended that institutes be held in the evening and with school board members.

Leo M. Favort[3] described an institute held in

[1] School and Society, 17:79-81, January, 1923.

[2] Cubberley and Elliott, State and County School Administration, p. 621.

[3] Elementary School Journal, 23: 493-494.

Louisiana, which he believes would solve the problem of institute values. The sessions were organized around the idea that teachers should take an active part in the institute program, thus motivating the programs. The outstanding feature was the organization of the teachers into fifteen committees, each committee to study and report upon a specific school problem.

The problems were: the school library; the teacher's reading; the textbook supply; supplementary reading; local problems; the first day of school; the high school schedule; monthly reports to parents; visits by school officers; history and geography maps; play and physical training; home economics; health work; club work; resolutions.

Each of the department programs was held daily for three periods of one hour each on the mornings of Tuesday, Wednesday and Thursday. The afternoon sessions were given over to the discussion of general problems, to talks by specialists in several fields and to reports.

J. E. Lombard, of the state department of education, said that, it was the only institute he ever attended in which every teacher really participated actively in the work of the institute for the entire week.

In order to put the institute on a more profitable professional basis it is suggested that it be reorganized along the following lines:

1. Active participation of teachers as a result of the initiative of the teachers themselves.
2. Institute problems arising from the research activities of the teachers.
3. Placing on the shoulders of teachers themselves the responsibility for solving educational problems.
4. A new name for the new organization, more descriptive than "institute."

If such a program could be brought about the institute would assume a new importance commensurate with the importance it formerly held at the time it was in reality a normal school.

A Plan for an Ideal Institution

A plan for "Altruria" County: "Altruria" is a mythical county in a state that provides for the district system. Instead of the old type institute, a new law provides that a county educational assembly be held each year within three months after the opening of school in the Fall.

Shortly after the opening of school each teacher in the county is notified on an official blank of the date of the assembly and of the fact that she must present a written report of the conditions of her school and community, which report she must be prepared to present before a group at the assembly. A copy of this blank is reproduced here.

OFFICE OF COUNTY SUPERINTENDENT
"ALTRURIA" COUNTY

To M ————————
District No. ————————

The annual county educational assembly will be held at Patrons High School, November 18 to 20. All teachers are expected to attend all sessions of the assembly.

Each teacher will be called upon to present a written report of the conditions in and surrounding her school before some group of her selection as indicated on this blank. This report should cover substantially the points as given in the accompanying outline which is to be used merely as a guide. No oral reports will be accepted.

Suggestive Outline

1. My school: (a) the plant—grounds; building; lighting; heating; ventilating; sanitary conditions; equipment; suggested improvements; (b) condition of pupils—intelligence; background; results of tests; (c) teaching problems.
2. The school board: personnel; policies.
3. The community: type of people; social conditions; economic conditions; religious conditions; ideals; attitudes; cooperation with school; support; needed reforms.
4. Special problems: Indicate which of the following groups you will likely want to attend and before which you will make your report—community service; practical help in classroom instruction; school plant and grounds; consolidation and transportation; extra-curricular activities; disciplinary problems.

Indicate upon which of the following committees you would rather serve: sanitation; social conditions; recommendations; interdistrict cooperation; community work exhibits; salaries; standards; test and measurements; resolutions; reception; entertainment.

Signed ————————
————————
County Superintendent.

Please return to office of the county superintendent within ten days.

Thus each teacher in "Altruria" County will come prepared to take an active part in the proceedings of the meeting both from the standpoint of program and of committee service. Her own research in her school and community will develop in her mind an idea of the seriousness and importance of the assembly and at the same time it will produce a great interest because she is to have a voice in its affairs. The institutes of "Altruria" County will be well attended, lively and profitable. They will be well worth the money and energy spent on them.

The Auditorium-Gymnasium for Small Schools

The new combined auditorium and gymnasium at Elkader, Iowa, is of the detached unit type which has been found to be especially satisfactory for small schools

By OREN THOMAS, Proudfoot, Rawson, Souers & Thomas, Architects, Des Moines, Iowa

ADEQUATE auditorium-gymnasium facilities are more easily provided in the large school building where the area of such rooms is only a small percentage of the total. It is possible to provide separate and individual rooms for the gymnasium and auditorium in such buildings without straining the appropriation or cramping the other departments or the classroom area.

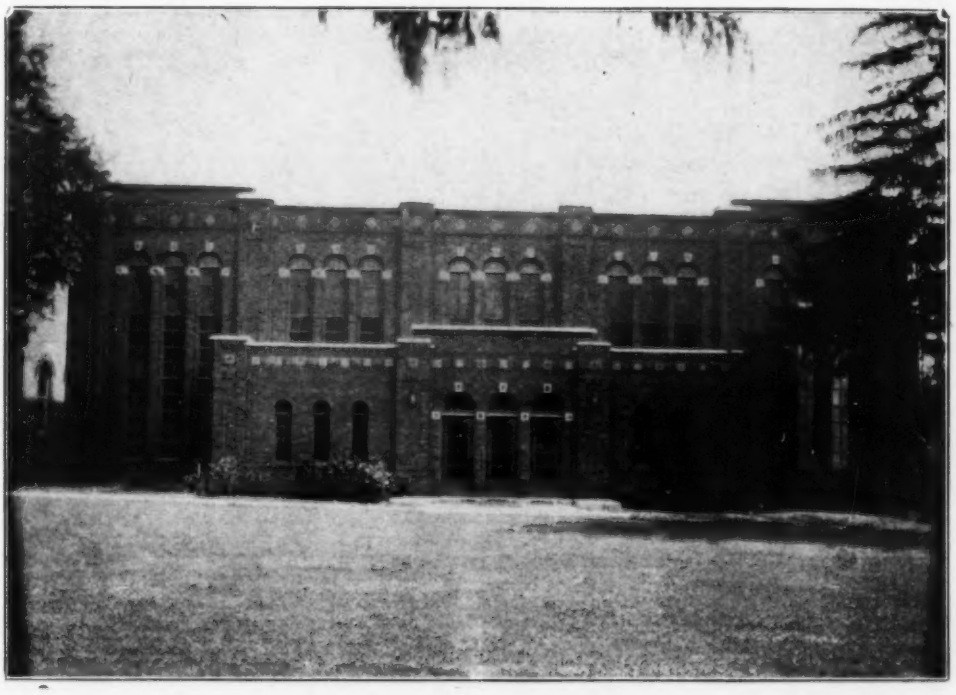
The playing floor of a gymnasium must be of approximately the same size in the small or large building, to fulfill all practical requirements. With the small building this area constitutes a considerable portion of the total area, resulting in an increased cost per pupil. The provision of adequate auditorium-gymnasium facilities in the small building, therefore, resolves itself into a problem for the architect when he is attempting to design and build at a low cost per pupil.

The solution of the problem in districts already having adequate and permanent buildings without provisions for such space is probably best accomplished by a detached unit. In some cases it is practicable to join the two units by means of corridors. From the standpoint of school administration, the possibility of a detached auditorium-gymnasium unit has its merits, since properly planned school buildings segregate these rooms as much as possible.

What a Small Iowa School Has Done

A recently constructed detached auditorium-gymnasium unit at Elkader, Iowa, illustrates a satisfactory plan for a small twelve-year school organization. Later this will be a part of the only building in the school district. It provides facilities for both elementary and high school physical training classes and for competitive athletics, and it provides also an assembly hall and an auditorium for community use.

We shall first consider the unit from the standpoint of its use as a gymnasium. The playing floor of the gymnasium is free from unusual ob-



This recently constructed detached auditorium-gymnasium unit at Elkader, Iowa, illustrates a satisfactory plan for a small twelve-year school organization.

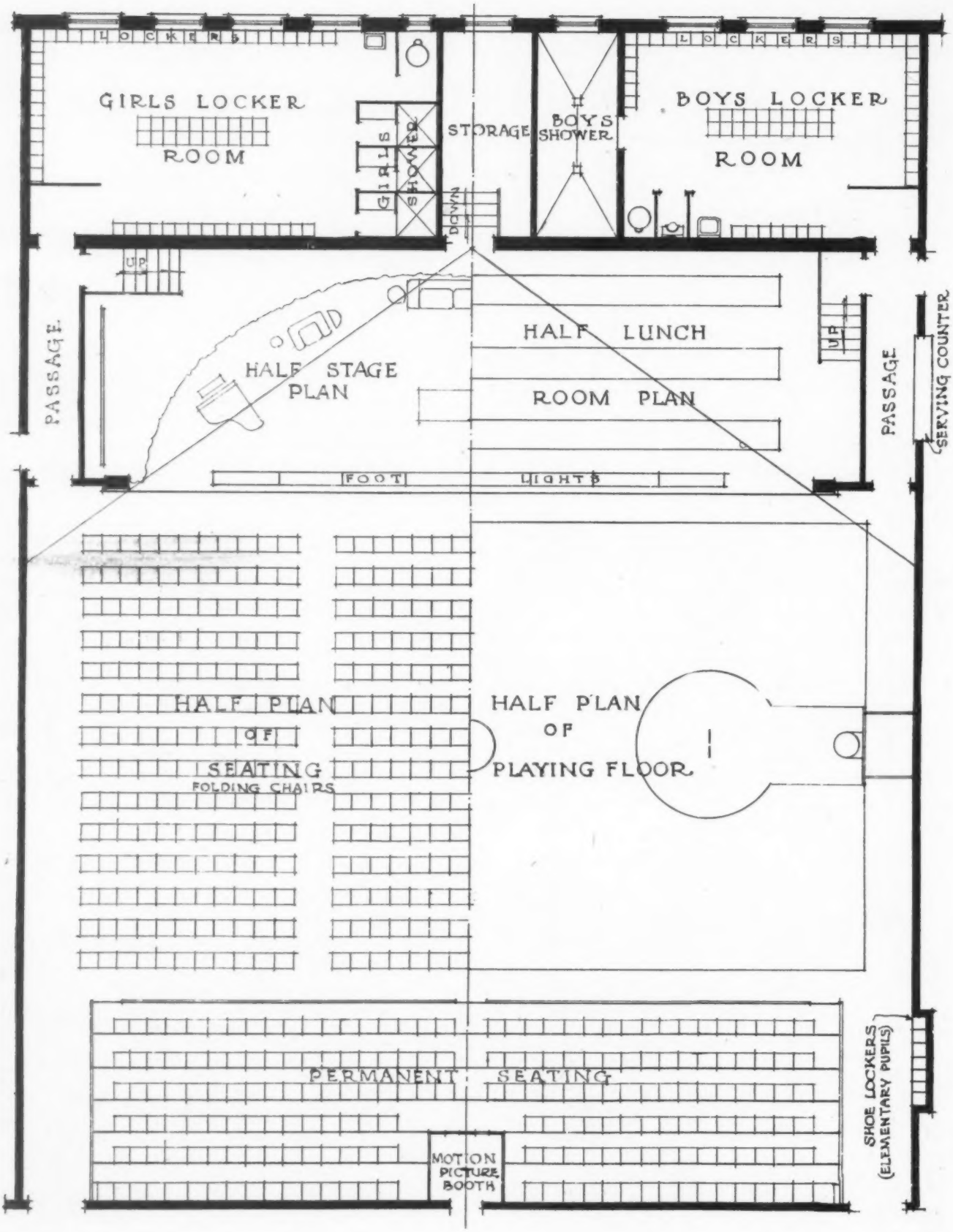


Fig. 2 illustrates the floor plan of a combined auditorium-gymnasium. The plan is arranged in half sections to show the advantages of this arrangement. Comparison with Fig. 5 will show that this plan provides for a greater seating capacity, whether the room is used as an auditorium or a gymnasium. The lunch room and stage area are also much larger in this arrangement.

structions and it is provided with permanent goals and other stationary gymnasium apparatus. The walls at the ends of the playing floor are free from windows, all of the light coming from the side. At one side of the gymnasium are the seats, permanent opera chairs, protected by a rail at the front. The chairs are set on rows of steps to give them the correct elevation.

The stage is directly opposite and an unusual width is provided in order that folding bleachers may be placed in this area, thus providing an excellent seating arrangement for gymnasium activities. A room is provided for the storage of this equipment when it is not in use. The arrangement allows at both sides of the playing floor the maximum amount of seating without obstruction.

The locker and shower rooms at the rear of the

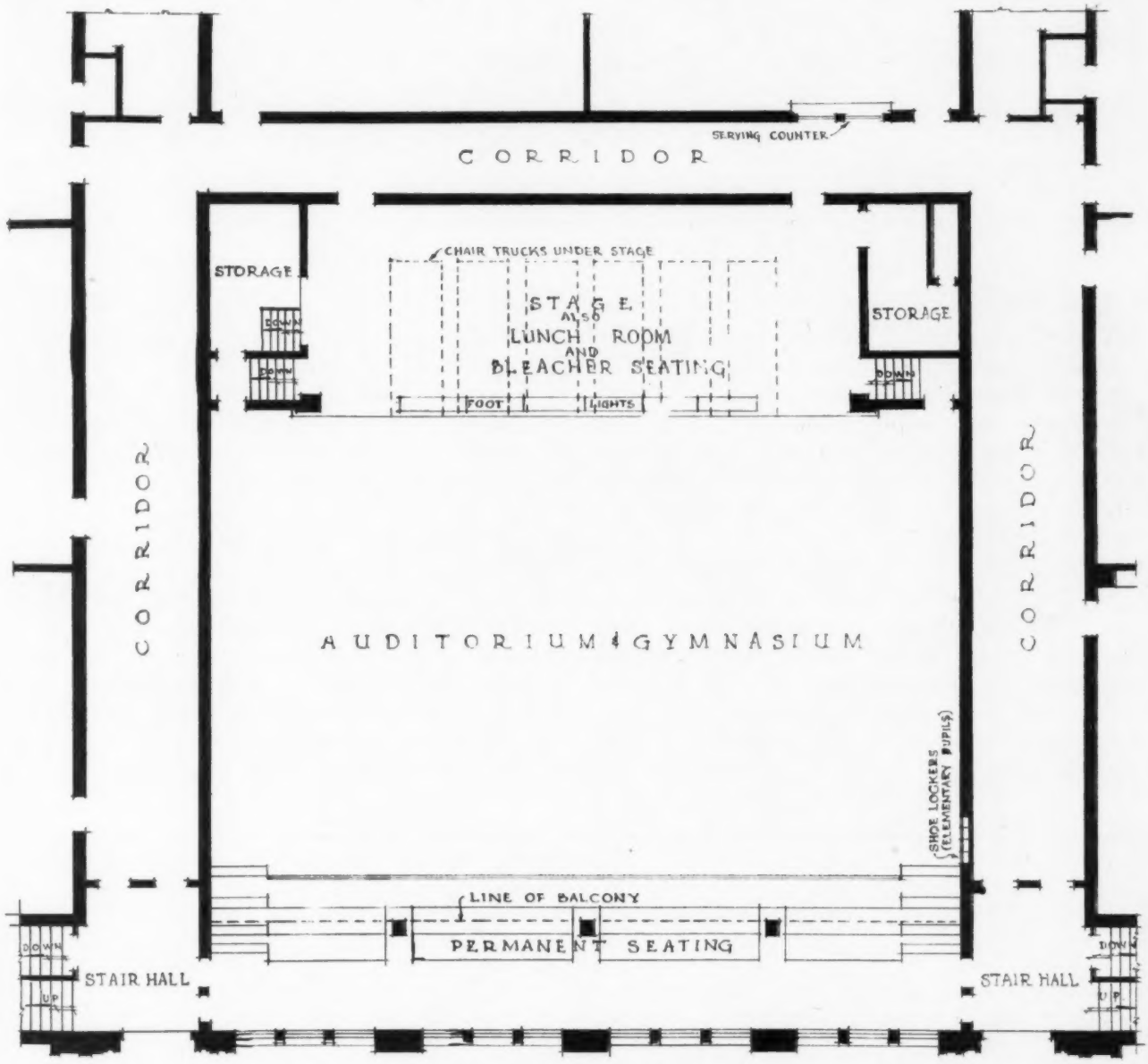
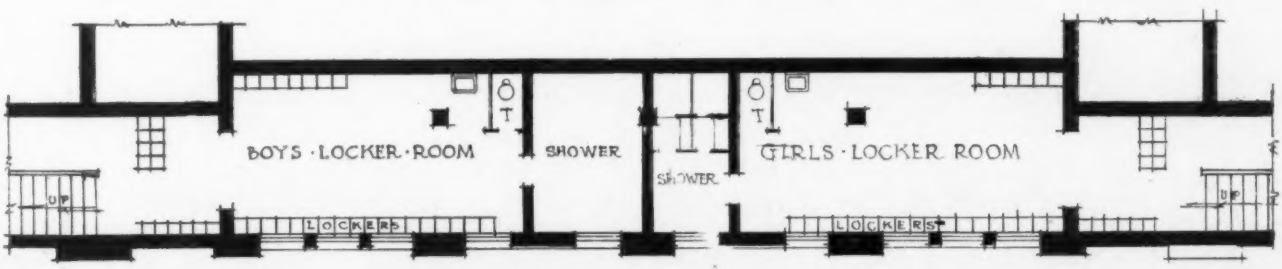


Fig. 1. The upper section of this picture shows an auditorium-gymnasium placed in the middle of a school building; the lower section is a plan of the locker room under the permanent seating area.



building are connected with a combination passage and entry to the gymnasium. Access may also be had to these rooms from the stage when they are used as stage dressing rooms. The locker rooms are on the same floor level, propble. The permanent opera chair seating is ideal which, due to its raised position, overcomes the general objection to the seating in such rooms. The permanent seating will, under ordinary conditions, meet the requirements for school use,

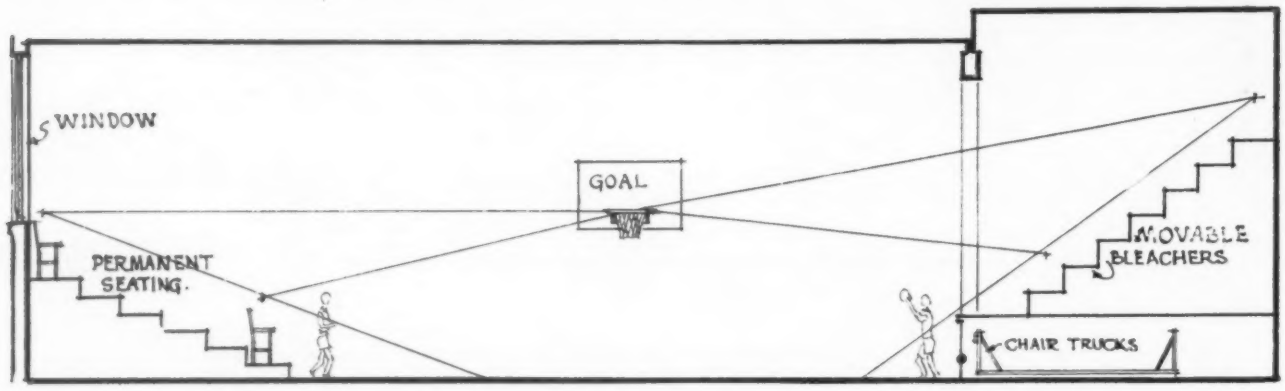


Fig. 3.

erly screened, well lighted and with provisions for cross ventilation. Toilets, lavatories and drinking fountains are provided in connection with these rooms. Small box lockers, consisting of a unit for each pupil in the high school, are provided in the center of the room for the storage of the pupils' physical training equipment. Standard lockers for the use of each class are provided at the wall.

Shoe lockers are provided in the gymnasium in which the grade pupils may store their shoes. This eliminates the necessity of their using the regular locker rooms away from the supervision of the teacher. It is possible to shut off each locker room, allowing outside entrance only to the locker rooms. This makes possible their use after school hours for

when the room is used for assembly, for visual instruction and for similar activities. Group folding chairs are provided for use on the floor of the gymnasium when the room is used as an auditorium. They are placed upon trucks under the stage when not in use and are thus conveniently at hand when they are needed.

The building may be made smaller or larger without difficulty, to fulfill the particular requirement. The problem in designing such a building lies in the provision of adequate and satisfactory seating space for both auditorium and gymnasium purposes. By using the stage for emergency gymnasium seating and by providing additional permanent seating which can be used for many purposes, a maximum use of all areas in the building is obtained. This means, of course, a

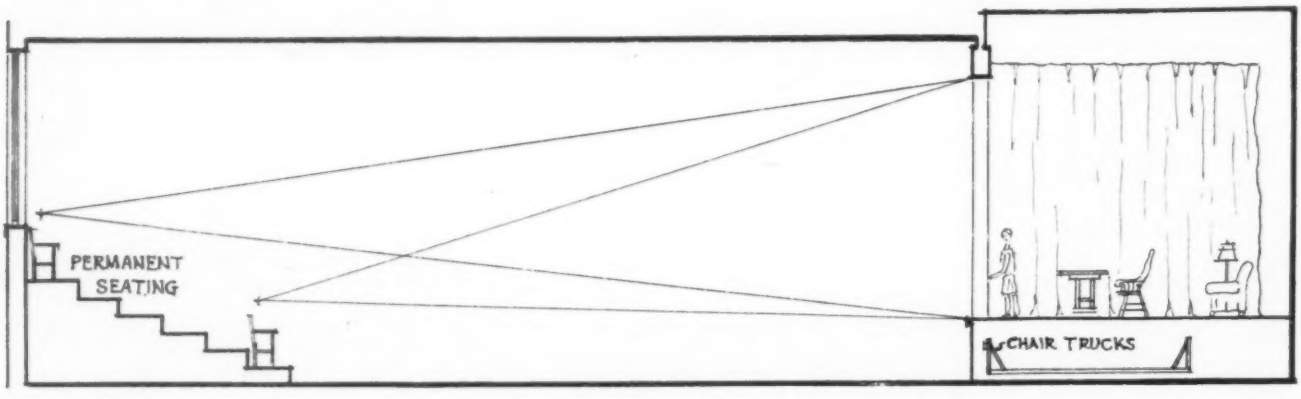


Fig. 4.

athletic activity in the field. The walls of the locker, the shower and the toilet rooms are faced with salt-glazed brick to give an impervious surface. The walls of the gymnasium are faced with the same material to a height of eight feet.

The use of the room as an auditorium is flexilow cost, in view of all the possible advantages.

Fig. 1 illustrates a room of similar type placed in the center of a twelve-year school building. This room is also provided with a balcony over the permanent seating area. The face of the balcony is set back in such a way as to allow a view

of the entire playing floor. Near the stage is the domestic science room with a serving counter opening to the corridor. Warm lunches are served from this room. The stage is also convenient for lunch room use. School and community banquets may be served, the gymnasium floor being used in cases of large gatherings. The boys' and girls' lockers and the shower rooms are so placed that they are under the permanent seating area.

Another room of a similar type has a small kitchen near the gymnasum floor and stage to allow the stage to be used as a lunch room also. The locker rooms are under the stage in this building. The permanent seating is placed on steps that terminate at the second floor line which may be reached at the rear from the high school floor. This allows easy access to the seating for high school assembly and for classes in visual instruction.

In order that a definite comparison may be made in the efficiency and costs of this type of room compared to a room with a stage at the end, drawings have been prepared as shown in Fig. 2 to Fig. 7 inclusive. Fig. 2 and Fig. 5 show floors having the same total area. The comparative efficiency as it refers to capacities of the two types of auditoriums is shown in the following tabulation:

	Fig. 2	*Fig. 5*
Capacity—gymnasium seating ..	474	300
Capacity—auditorium seating ..	704	682
Total areas	6,300	6,300
Area—stage	1,160	665
Lunch room capacity	144	87
Permanent assembly capacity ..	200	none

It may be seen that the capacities are much in favor of Fig. 2.

Fig. 3 illustrates a cross section of Fig. 2 used as a gymnasium seated for competitive games on the floor. Sight lines are drawn from the permanent opera chair seating and the movable bleachers on the stage, thus giving a clear view of the entire playing floor from all seats. The position of trucks under the stage on which are stored the folding chairs for auditorium use should be noted carefully. The basket ball goals, placed on blank walls at either end of the playing floor, overcome the objection of movable goals at the stage.

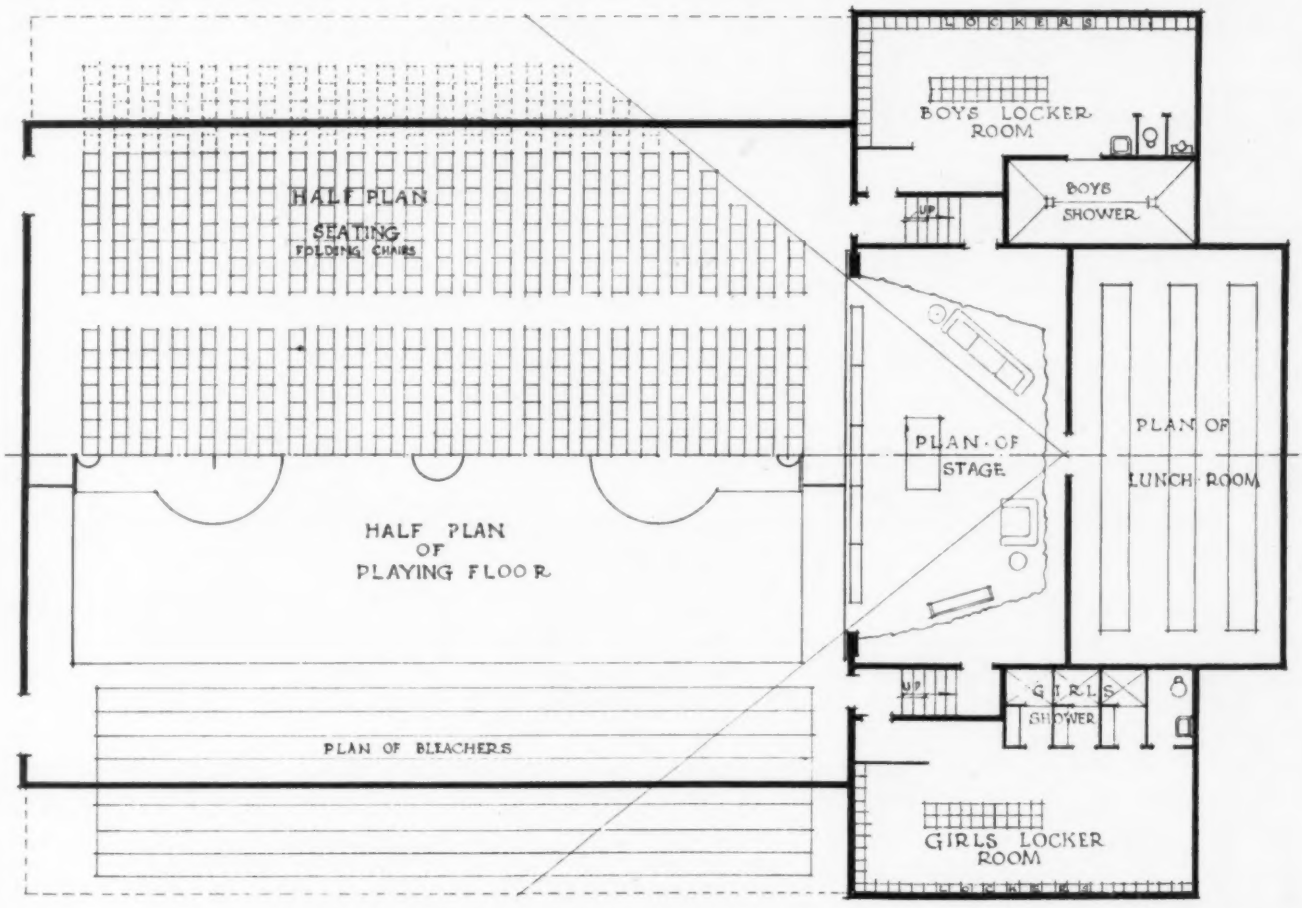


Fig. 5. The floor area in this gymnasium-auditorium is the same as that in Fig. 2, but the seating capacity is less.

Fig. 6 is a section of Fig. 5 and illustrates the use of the hall as a gymnasium. It will be seen that the basket ball goal at the stage seriously interferes with stage bleacher seating. The goal obstructs the view, and the seating at the end of

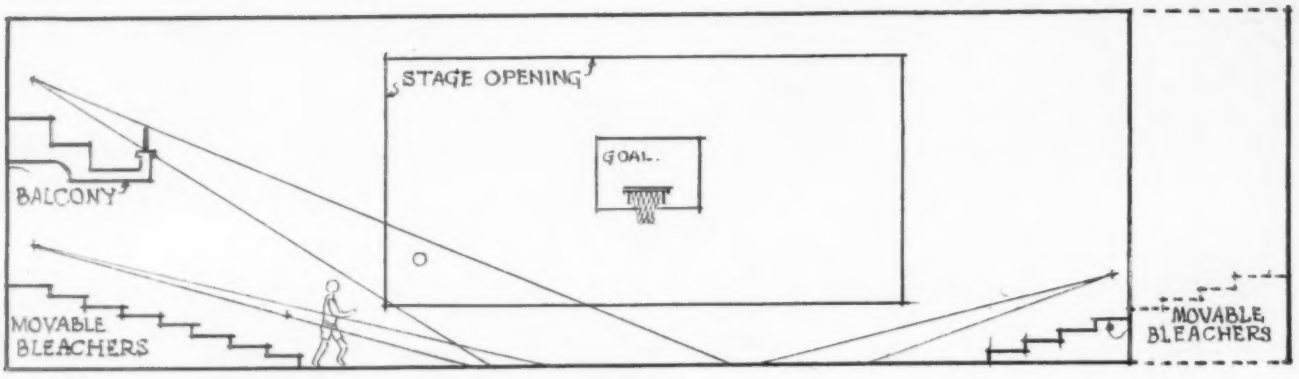


Fig. 6.

the playing floor is not as satisfactory as that at the side. Bleacher seating is shown at the side although this may be of permanent type. If fixed seating is provided, however, it is unsatisfactory as auditorium seating, because the spectator must turn his head at a considerable angle to view the stage.

Fig. 6 indicates the possibilities of enlargement (shown in dotted lines) to accommodate the same number of auditorium seats as Fig. 2. One-half of Fig. 6 shows the enlarged room with balcony and additional movable bleachers and the location of the basket ball goal.

A balcony indicated shows that even with steep steps and with the balcony placed at the lowest possible elevation, the spectators back of the first row can see scarcely more than half of the playing floor. It is quite common to find unsatisfactory balconies in gymnasiums and they should not be used except in unusual cases. If the structural costs of small balconies and the accessories for rooms of this type are carefully checked, it will usually be found that seats may be provided at less cost per unit by enlarging the main seating area.

Sight Lines Are Good

Fig. 4 is a section of Fig. 2 showing sight lines when the room is used as an auditorium. Fig. 7 shows sight lines of Fig. 5 while the room is arranged for use as an auditorium. Here is indicated one of the many advantages of the plan shown in Fig. 2.

The eye level is on a level plane the entire length of the gymnasium playing floor in Fig. 5, whereas in Fig. 2 the eye level begins to rise beyond the width of the playing floor. This gives a desirable effect similar to the usual sloping floor of an auditorium.

Cost data concerning the auditorium-gymnasium at Elkader, Iowa, are as follows: general construction, $31,296.50; plumbing, heating and ventilating, $5,712.16; electrical work, $731.60; equipment (scenery, seating, walks, etc.), $3,391.69. The total cost of the building was $41,131.95. The total number of cubic feet in the building is 242,000 and the cost was seventeen cents a cubic foot.

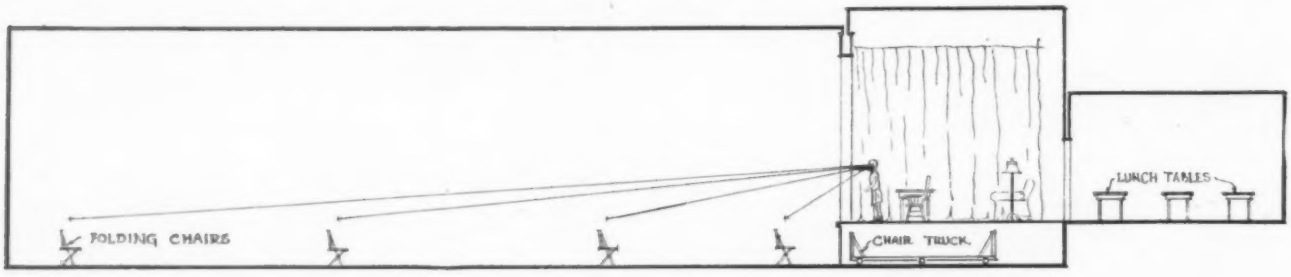


Fig. 7.

600 School Children Are Members of Communist League

"Spread the gospel of Soviet Russia in the public schools of New York City," is the slogan of 600 school children, members of an organization of young communists in New York City known as the Young Pioneers of America. When the young pioneers are sixteen years old they graduate into the Young Communist League.

The pioneers held a meeting recently at the Labor Temple in New York City and listened to their leaders, Hyman Halpert and Jessie Taft, both fourteen years old, tell them that "the only country we have is Soviet Russia. It is our land. In Russia the schools are better. There the children govern themselves. In Russia we have 4,500,000 children in the pioneers drilled and trained to take the field against the war the bosses are preparing against Russia."

Estimating Teaching Loads by Means of Subject Coefficients

This study reveals that there is, in the opinion of teachers, considerable variation in the teaching difficulty of the various high school courses

By W. W. TRITT, Assistant Superintendent of Schools, Los Angeles, and MARIEN M. KEYES, Belmont High School, Los Angeles

IN The Nation's Schools for October, 1928, Prof. Harl R. Douglass presented a formula by which the teaching load in the high school might be measured. He showed that the load cannot fairly be measured merely in terms of periods of work, or of number of classes, number of pupils or number of preparations, since all of these elements certainly enter into the total actual load. He proposed an equation which, he admitted, cannot be derived or mathematically justified, but can be applied in an attempt to recognize all three of the aforementioned elements in the load. Considering twenty-five pupils as the optimum number in a high school class and three preparations as the average found in high schools, he proposed the following formula:

$$\text{Teaching load} = \text{No. of Cl.} + \frac{\text{No. of Pupils} - (\text{No. of Cl.} \times 25)}{60} + \frac{\text{Prep.} - 3}{3}$$

Using this formula for all teachers, however, would be assuming that all subjects taught are equally difficult and that teachers' programs differ only in the variables of the equation, namely, number of classes, number of pupils, number of preparations. Professor Douglass recognized the fact that there is at least one other variable involved, the inherent degree of difficulty of teaching each subject, since certainly the teaching load in different subjects depends upon such matters as the natural interest the subjects have for

Table I—Teacher Load at Belmont High School*

Distribution of Scores of 91 Teachers Estimating the Teacher Load of Conducting a Home Room of 35 Pupils if the Teaching Load of an Average Recitation Class Is Valued at 10

A—Art
B—Commercial
C—English
D—Foreign Language
E—Home Economics
F—Mathematics
G—Mech. Arts
H—Music
I—Boys P. Ed.
J—Girls P. Ed.
K—Science
L—Social Science
M—All Teachers

Number of Teachers in Various Departments Estimating Load of Conducting a Home Room

Score	A	B	C	D	E	F	G	H	I	J	K	L	M
1	..	..	..	..	..	..	..	..	..	..	..	..	..
2	..	..	..	..	..	..	..	1	..	..	..	..	1
3	..	..	1	1	..	..	..	..	..	..	..	..	2
4	..	..	1	..	..	..	..	..	..	..	..	..	1
5	..	1	1	2	..	1	..	..	..	..	..	..	5
6	..	..	..	..	..	..	..	..	..	..	..	..	1
7	..	..	1	1	..	..	..	1	..	..	..	..	6
8	2	1	7	..	..	1	1	..	..	2	2	4	22
9	..	2	2	..	1	..	1	..	3	..	..	..	8
10	..	3	2	3	5	3	..	1	..	..	1	5	23
11	..	..	..	..	..	..	..	..	..	..	..	..	..
12	1	2	2	..	..	..	2	..	1	1	2	1	12
13	..	..	..	..	..	..	..	..	..	..	..	..	..
14	..	..	..	..	..	..	..	..	..	..	1	..	1
15	1	1	..	..	..	2	1	..	1	..	3	..	9
Total	4	10	17	7	6	7	5	3	5	3	9	10	91
Median Score.	10	10	8	7	10	10	12	7	9	8	12	10	9

*This table should be read as follows: The estimated score of 8 for the teaching load of conducting a home room was given by two teachers in the art department, one teacher in the commercial department, etc., and by twenty-two teachers in the school. The median score as given by the art teachers was 10, by the commercial teachers, 10, and by the school as a whole it was 9.

pupils, whether subjects are electives or required, whether subjects are continuous or complete in one term, the amount of equipment and supplies to be cared for, the amount of home study for which the teacher is responsible, the amount of outside paper work or other outside activity involved for the teacher, the publicity of results and, especially, the degree to which the subject is fundamental to the mastery of other subjects. Hence, Professor Douglass suggested that it would be necessary to work out coefficients for the different subjects.

What follows is a report of an attempt to determine such subject coefficients. The absence of objective data made it necessary to use the familiar method of averaging a number of subjective opinions. The results are therefore as questionable as any results based on a questionnaire asking for opinions, but they are at least more trustworthy than the opinion of a single individual. Principals, on whose judgment the assigning of teaching programs commonly depends, may perhaps welcome the combined judgment of many teachers on this intimate and intangible problem of school justice.

The ninety-one members of the faculty of Belmont High School, Los Angeles, were given the following list of the general subjects taught in the school: art; commercial; English; foreign language; home economics; mathematics; mechanic arts; music; boys' physical education; girls' physical education; science; social science. They were then directed to subject them to the following analysis:

1. Estimate the teaching load of an average class in each of these subjects by putting a number after the name of each subject. The number 10 is to be used to indicate the subject you consider to have the average teaching load, and numbers less or more than 10 to indicate subjects of proportionately less or more teaching load than the average. Do not consider the size and number of classes, as these points are weighted elsewhere.

2. Indicate the subject you are now teaching and also all the subjects you have ever taught in high school.

3. Evaluate the teaching load of a study hall of 100 pupils, and of a home room, in comparison with an average class in your own subject, counting the subject as 10.

It will be seen that the second item allows for a separate accounting of the opinions of the teachers who had had experience in different subjects, and whose opinions might be considered somewhat more reliable, and that the third item gives another slant on the comparative difficulty of the various subjects by comparing them with study hall and home room, in which most teachers have a somewhat common basis of experience from which to judge. The accompanying tables show

TABLE II—TEACHER LOAD AT BELMONT HIGH SCHOOL*

Distribution of Scores of 91 Teachers Estimating the Teaching Load of Conducting a Study Hall of 100 Pupils, if the Load of an Average Recitation Class Is Valued at 10

A—Art
B—Commercial
C—English
D—Foreign Language
E—Home Economics
F—Mathematics
G—Mech. Arts
H—Music
I—Boys P. Ed.
J—Girls P. Ed.
K—Science
L—Social Science
M—All Teachers

Number of Teachers in Various Departments Estimating the Load of Conducting a Study Hall

Score	*A*	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*K*	*L*	*M*
1	..	..	..	..	..	..	..	..	..	..	..	..	..
2	..	..	..	1	..	..	..	..	..	..	..	..	1
3	1	1	1	1	..	..	..	1	..	..	..	..	4
4	..	..	..	..	..	..	..	..	..	..	..	..	3
5	1	2	3	2	3	..	1	1	..	..	2	5	22
6	..	..	1	..	..	..	..	..	1	1	1	2	6
7	..	1	6	..	1	2	..	..	1	1	1	1	15
8	1	3	3	2	1	2	2	..	1	1	3	1	20
9	..	1	1	..	..	..	..	..	1	..	..	..	3
10	1	2	2	1	1	3	1	1	1	..	1	..	14
11	..	..	..	..	..	..	..	..	..	..	..	..	..
12	..	..	..	..	..	..	1	..	..	..	..	1	2
13	..	..	..	..	..	..	..	..	..	..	..	..	..
14	..	..	..	..	..	..	..	..	..	..	1	..	1
Total	4	10	17	7	6	7	5	3	5	3	9	10	91
Median Score.	6.5	8	7	5	6	8	8	7.5	8	7	8	6	7

*This table should be read as follows: The estimated score of 8 for the teaching load of conducting a study hall was given by one teacher of the art department, three in the commercial department, etc., and by twenty teachers in the school. The median score as given by the art teachers was 6.5, by the commercial teachers, 8, etc., and by the school as a whole, 7.

the teacher estimates of study hall and home room loads just described.

It is evident, of course, that the estimated rank of the subjects according to difficulty is the inverse of the estimated ranking of home room and study hall. For example, if the science teachers estimate a home room as 12 in comparison with 10 as the average degree of difficulty of a science class, they mean that conducting a home room is that much more difficult than teaching a science class. When the foreign language teachers estimate the home room as 7 against the 10 of an average foreign language class, they mean that conducting a home room is that much less work than teaching a foreign language class. Teaching a science class, according to the science teachers' judgments, is 1/6 (16 2/3 per cent) easier than conducting a home room, while teaching a foreign language class, according to the foreign language teachers' judgments, is 3/7 (43 per cent) harder; the work in a science class would, if this estimate alone were relied on, be only about half as difficult as that in a foreign language class. Of course, the teachers are influenced by too many personal factors, such as varying conceptions of the function of the home room teacher, the foreign language teacher's past experience with conditions similar to home rooms and the laboratory teacher's inexperience in handling large numbers in a short period, for their judgments to be entirely reliable. The figures do, however, show a general tendency.

The estimate of the teacher load of the various subjects by all the teachers, shown in Table III, has more definite value.

Table IV is a recapitulation of Table III and shows details of the judgments of certain groups. For example, No. 1 shows the more or less prejudiced opinion of the teachers of each subject as to their own work, in which the rare candor of the physical education departments is perhaps the most significant item.

Assuming No. 5 to be more reliable than No. 1, No. 2, No. 3 or No. 4, it was modified by the opinions of a "special group" to produce No. 6. The special group for comparing any two subjects was the teachers who had taught those two subjects. For example, three teachers who had taught both art and English judged that art was 3 less difficult than English or that English was 3 more difficult than art; two teachers of commercial subjects and science estimated science as 0.7 of a point less difficult than commercial work, or positively, commercial work 0.7 more difficult than science; nineteen teachers of English and social science estimated English as 2.1 more difficult

TABLE III—TEACHER LOAD AT BELMONT HIGH SCHOOL*

Distribution of Scores of 88 Teachers Estimating Teacher Load

A—Art	*E—Home Economics*	*I—Boys P. Ed.*
B—Commercial	*F—Mathematics*	*J—Girls P. Ed.*
C—English	*G—Mech. Arts*	*K—Science*
D—Foreign Language	*H—Music*	*L—Social Sci.*

Number of Teachers Estimating Weight of Classes in Various Departments

Score	A	B	C	D	E	F	G	H	I	J	K	L
1	..	..	..	..	..	..	..	..	..	..	..	..
2	..	..	..	..	..	..	..	..	..	..	..	..
3	..	..	..	..	..	..	..	.	1	1	..	..
4	..	..	..	..	..	..	..	1	1	1	..	..
5	..	1	..	..	3	..	3	1	11	10	..	..
6	4	1	..	..	2	..	3	2	8	10	..	..
7	4	1	..	..	6	..	7	10	14	13	1	..
8	27	23	2	1	30	3	25	26	30	32	..	2
9	12	16	2	8	7	10	18	12	14	10	3	3
10	30	37	32	17	30	43	25	18	3	5	38	61
11	1	2	5	9	2	5	..	3	2	1	5	7
12	9	5	28	29	7	18	6	11	2	2	28	13
13	..	..	5	4	1	..	..	..	..	..	3	..
14	..	..	6	5	..	3	..	1	..	..	3	1
15	..	..	5	12	..	6	..	2	..	..	4	..
16	..	..	1	2	..	..	..	..	..	..	..	..
17	..	..	..	..	..	..	..	..	..	..	..	..
18	..	1	1	..	..	1	..	..	..	..	1	..
19	..	..	..	..	..	..	..	..	..	..	..	..
20	..	1	..	1	..	..	..	..	..	..	1	..
Total	87	88	87	88	88	88	87	87	87	85	87	87
Median	9	10	12	12	9	10	9	9	8	8	11	10

*This table should be read as follows: A score of 8 was given to the average art class by twenty-seven teachers, to the average commercial class, by twenty-three teachers, etc. The median rating for art classes was 9, for commercial classes, 10, etc.

than social science. Averaging all these opinions for the subjects actually taught (as a special group) and modifying No. 5 by them, either up or down as the average judgment indicated more or less than the norm (No. 5), we obtain No. 6, which is probably the fairest final subject coefficient to be reached by this study.

Table V is included as a matter of interest. It shows the number of teachers involved in each of the groups whose judgments were given in Table IV, and the range from which the medians of Table IV were obtained. For example, it should be read as follows for No. 1: A represents the art department; the upper figure 4 means that the estimates of 4 art teachers, in rating the difficulty of their own subject (the topic of No. 1), ranged from 10 to 12.

To estimate the teaching load of any teacher, then, we might modify Professor Douglass's equation by multiplying it by the appropriate subject coefficient of No. 6, and by adding the home room and study hall load, using the medians of Tables I and II for that purpose. All extra-curricular activities assigned in lieu of a regular class may be weighted as 1, though here again there is need of evaluation, since such assignments certainly differ among themselves in the work involved.

In the case of double period subjects, the question arises as whether to count a two-period class as one or as two. There are arguments on both sides: The teacher is busy for two periods and is entitled to credit for that amount of time, yet she has in that time but one class with one problem of instruction, undoubtedly less of a tax than teaching two separate classes for the same length of time. It is probably fair to work out the equation both ways for such schedules, noting the difference in total weight.

The use of this corrected equation reveals considerable difference in teachers' schedules, as may

TABLE VI 12

Teaching load = (No. classes + $\frac{\text{No. pupils} - (\text{no. classes} \times 25)}{60}$) × Coef. of subject + $\frac{\text{prep.} - 3}{3}$ + Coef. of HR. × No. of hr. + Coef. of st. hall × No. of st halls.

Dept. + Coef.	Teacher	No. Rec.	No. Pupils	No. Prep.	HR	St.	Act.	Classes × Subj. Coef.	Prep.	HR	St.	Act.	Total
Art .9	F	3	57	3	1			$\frac{2.7}{.9}$ / 2.43		.9			3.33
	*	6	114	3	1			$\frac{5.40}{.9}$ / 4.86		.9			5.76
Com. .99	B	6	228	3	1			$\frac{7.3}{.99}$ / 7.25	—	.9			8.13
Eng. 1.21	G	5	137	4	1			$\frac{5.2}{1.21}$ / 6.29	+.33	.9	—	—	7.52
For. Lang. 1.11	H	6	162	4	1			$\frac{6.2}{1.11}$ / 6.88	+.33	.9	—		8.11
Home Ec. .9	M	3	54	2	1			$\frac{2.65}{.9}$ / 2.56	-.33	.9	—		3.15
	*	6	108	2	1			$\frac{5.3}{.9}$ / 4.77	-.33	.9	—		5.37
Math. 1.08	McD	6	192	4	1			$\frac{6.7}{1.08}$ / 7.23	+.33	.9	—	—	8.46
Mech. Arts .87	W	3	62	3	1			$\frac{2.78}{.87}$ / 2.42	—	.9			3.12
	*	6	124	3	1			$\frac{5.57}{.87}$ / 4.84	—	.9			5.74
Boys' P. Ed. .7	R	6	139	2			1	$\frac{5.81}{.7}$ / 4.07	-.33	-	—	1	4.74
Girls' P. Ed. .72	C	6	175	3	1			$\frac{6.42}{.72}$ / 4.62	—	9	—	—	5.52
Science 1.12	W	6	209	3	1			$\frac{7}{1.12}$ / 7.84	—	.9			8.74
	P	4	104	2	1			$\frac{4.07}{1.12}$ / 4.56	-.33	.9			5.13
	*	6	156	2	1			$\frac{6.1}{1.12}$ / 6.83	-.33	.9	—	—	7.43
Soc. Sc. 1.05	Ro	5	158	2	1	1		$\frac{5.13}{1.05}$ / 5.39	-.33	.9	.7		6.67
	Hu	6	172	3	1			$\frac{6.37}{1.05}$ / 6.69	—	.9	—	—	7.59
Music 1.05	S	6	116	5	1			$\frac{5.43}{1.05}$ / 5.70	.66	.9	—	—	7.26

* Double period subject, worked out twice, first as one class, second as two classes and twice the pupil enrollment.

There is considerable difference in the teaching load of various subjects as revealed in this table in which equations have been worked out for each teaching schedule, including home room and study hall load.

TABLE IV—TEACHING LOAD

Teaching Load Estimated by Teachers—Figures Given Are Medians

A—Art *E—Home Economics* *I—Boys P. Ed.*
B—Commercial *F—Mathematics* *J—Girls P. Ed.*
C—English *G—Mech. Arts* *K—Science*
D—Foreign Language *H—Music* *L—Social Science*

Estimated by	*A*	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*K*	*L*
1. Members of the departments ...	11	10	12	15	10	11	10	12	8	7.5	12	10
2. Teachers having experience in two or more departments	9	10	12	12	10	10	9.5	10	7	8	12	10
3. Principals (3)	8	10	12	10	8	10	8	8	7	7	10	10
4. Heads of departments (12)	9	9.5	10.5	12.5	9.5	10	9.5	8	5.5	5.5	11.5	10
5. All teachers in the school (91) ..	9	10	12	12	9	10	9	9	8	8	11	10
6. Special grouping	9	9.9	12.1	11.1	9	10.8	8.7	10.5	7	7.2	11.2	10.5

be seen in the actual cases presented in Table VI.

Such wide variation as the 3.33 (or 5.76) of F's program and the 8.74 of W's calls for adjustment. The academic one-period subjects in general make a load much greater than the nonacademic double-period subjects. Equalization should be ensured, either by fewer pupils or fewer classes in the academic departments, or by more classes and more pupils in the nonacademic departments. As will be noted by the number of recitations and study and home room assignments, the extraordinary load in the English department had been recognized by assigning one less period of work. Even so, the English program is heavy.

This study has revealed that there is, in the opinion of teachers, considerable difference in the teaching load of different subjects. It has attempted to extend Professor Douglass's interesting equation to include this difference and to make it more complete by estimating the teaching load of home room and study hall so often found on teachers' programs. It has shown how widely actual schedules vary when measured by the equation. Finally, it has raised the question (and left it unanswered) of whether different classes within the same department do not differ in teaching difficulty as widely as do the departments themselves, and hence in fairness should have subject coefficients worked out for each.

As far as this study goes, however, the average classes of standard high school subjects rank in weight of teaching load, ranging from the most difficult to the least difficult, as follows: English, 12.1; science, 11.2; foreign languages, 11.1; mathematics, 10.8; social science and music, 10.5; commercial, 9.9; art and home economics, 9; mechanic arts, 8.7; girls' physical education, 7.2; boys' physical education, 7.

TABLE V—NUMBER OF CASES AND RANGE FROM WHICH MEDIANS IN TABLE IV WERE OBTAINED*

No.	*A*	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*K*	*L*
1.	4 10-12	11 8-12	16 12-15	7 10-20	5 10-12	6 10-12	7 10-12	3 12-15	5 7-11	4 7-8	9 10-12	11 10-14
2.	6 8-12	9 8-12	35 10-15	26 8-20	3 8-10	24 9-15	4 8-12	2 8-12	2 5-9	9 7-11	17 10-13	26 8-14
3.	3 8	3 8-10	3 10-12	3 10-12	3 8	3 10-11	3 7-9	3 8-9	3 6-8	3 6-8	3 10	3 10-11
4.	12 6-12	12 5-10	12 8-14	12 9-15	12 5-10	12 8-15	12 7-12	12 4-15	12 3-11	12 3-10	12 7-15	12 8-12
5.	87 6-12	88 5-20	87 8-18	88 8-20	88 5-13	88 8-18	87 5-12	87 4-15	87 3-12	85 3-12	87 7-20	87 8-14
6.	14 7-10.5	29 7-10.3	92 9-15	78 10.8-13	7 7-10	73 9-12	11 6-9	8 8-12	9 6-11	28 5-8	49 9-13	74 8.5-11.2

*The upper figures indicate cases and the lower figures, range.

Native Pupils Exhibit Their Work at Fair in Alaska

At a fair held recently at Anchorage, Alaska, some of the most interesting articles exhibited were made by native boys who are pupils in the industrial school maintained by the United States Office of Education. Sleds made by the boys were sold for $50 and $60 each and snowshoes for $10 a pair.

School Surveys and Their Influence on Building Problems

As a result of the comprehensive studies that have been made of school facilities, the taxpayers' money is being put to practical use in constructing modern schools that protect the lives and health of the pupils

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IT IS a well recognized fact that school plant development has been rapid during the past fifteen years. This development has centered around two distinct problems, (1) the planning and construction of school buildings that safeguard the lives and health of pupils, facilitate the operation of the educational program and give a maximum return on the taxpayers' dollar, and (2) the planning of building programs so that they will adequately and efficiently meet the future school housing needs of the community.

Many factors have contributed to the rapid increase in the number of techniques with which these problems may be attacked. One of the most important contributing factors has been the school survey movement. This article reviews the important aspects of this movement and presents the results of seventy surveys, insofar as they have dealt with school buildings. Such an analysis should indicate in part how surveys may be used in the further attack on school building problems.

Early educational leaders recognized the importance of well planned school buildings and developed individual standards for buildings and sites. In 1823, Horace Mann submitted a report to the Massachusetts State Board of Education on the supply of school houses. He discussed seven subjects: ventilation and warming; size; desks and seats; location; light and windows; yard and playground, and duties of instructors in relation to schoolhouses. In the final portion of the report a series of school plans were given. It is clear from his statements on these various subjects that few standards were then accepted. The following is illustrative of one of the accepted standards that Horace Mann was questioning:

"In order that passing outdoor objects and events may not draw off the attention of the scholars, it is usually recommended to insert the windows so high that such objects and events will be invisible in the schoolroom. It cannot, however, be denied that this gives to the room a prison or cellar-like appearance."[1]

By 1885 a limited group of school building standards were commonly accepted. They were by no means inclusive but have served as the

This consolidated school in Tennessee has replaced several one-room schools.

basis for our present standards. In the annual report for 1884-85 made by George A. Walton, agent of the Massachusetts State Board of Education, these standards were clearly stated. Agent Walton said in part:

"I have seen during the year a number of schoolrooms whose capacity affords less than one-half the air demanded for good health; one gave but 84 cubic feet of air space per pupil; another, but 72; another, a recitation room, but 30; while health demands 250 cubic feet of space per pupil.

"Many of the rooms visited are poorly ventilated, and many, too, imperfectly lighted. A prevailing fault consists in having the light in front of the pupil. One room, in a house comparatively modern, 28 feet by 30 feet, had, to 15 feet of floor space, but one foot of window; while the ratio of space for lighting to the floor surface should be as one to six or eight."[2]

Notable Survey Made in Harrisburg

At the beginning of the modern survey movement the group of building standards had been expanded beyond those recognized by Mr. Walton. The importance of the housing problems was increasingly recognized but subjective methods of measurement were still relied upon.

The first survey that gave special attention to buildings was the study of the schools of Harrisburg, Pa., made by Henry Snyder in 1912, which dealt only with buildings. It may be considered among the best surveys of that time. In the investigation, the buildings were all carefully inspected. The report pointed out certain good and bad features in planning and construction with suggestions for improvements. The standards, however, were entirely subjective and were not definitely stated. In the following year, 1913, the survey made of the schools of Portland, Ore., was more specific in certain items. Definite standards were stated for the following: (1) playground space per pupil, (2) size of sites, (3) construction of sufficiently fire resistive types of buildings, (4) environment and orientation of buildings, (5) classroom lighting, (6) size of classrooms and (7) methods of ventilation.

The surveys made in Butte, Mont., and Springfield, Ill., in 1914 and 1915 included definite measurements of many items studied. In the Butte study, definite classroom measurements were made. In Springfield extensive tests of illumination, temperature and humidity were conducted, and the ratio of window area to floor area was computed for a number of classrooms. Definite standards were stated for the size of the classrooms, the ratio of window space to floor area, the minimum amount of light and the required toilet facilities. A definite form was used for collecting information about individual classrooms and buildings. The survey made in Salt Lake City, Utah, in the same year also presented a carefully detailed analysis of school buildings. As was true of all these early studies, the emphasis was placed upon individual classrooms.

The Framingham, Mass., survey made in 1916 presented one of the most far-reaching developments that has taken place in school building programs. The many standards that before had been applied to school buildings were consolidated in definite form on a building score card. This card had been in the process of development for more than two years. More than three hundred men, including architects, superintendents of schools and building experts, cooperated in its development. The items for consideration were selected on the basis of relative importance and were weighted on a scale of 1,000 points. The score card was thoroughly tested out and revised and now is widely accepted as a basis for evaluating school buildings. Separate forms with books of standards have been developed for elementary[3] and high school buildings and for administration buildings.

The advantages of this method of plant evaluation are so obvious that they hardly require comment. Most significant is the more nearly objective basis of evaluation thus provided. Different persons with a small amount of training in the use of the score card will evaluate a building and will differ within only a few points of each other. This method also makes possible comparison of buildings within a system as well as comparison between buildings in other cities. Weak points in a building are revealed. Important items are not easily overlooked. The score card also makes it easier to obtain a view of the entire group of buildings in a given city. These values are attested by the fact that nine out of twelve building surveys made in 1927 used the score card as a basis of school plant analysis.

How Score Card Is Used

The value of the score card, however, is not to be adequately estimated by the number of surveys in which it has been employed. School administrators have made wide use of it as a means of evaluating their own school plants, and individual phases of the building standards have been made subjects of special study since the development of the score card. McClure's[4] study of ventilation and Morphet's[5] study of utilization are especially significant.

The Portland, Ore., survey made in 1913 was among the first to consider the importance of

This large consolidated school near Montgomery, Ala., is the type of structure that is gaining favor in warmer climates.

making allowance for a shifting population in the attempt to solve the problem of providing schoolhouse facilities. The survey report dealt at some length with the problem involved, with no definite conclusions.[6] The lack of techniques with which to attack the problems involved with a shifting population offers a sharp contrast to later developments and suggests the importance of these developments.

The Framingham, Mass., survey contributed significantly to the development of building standards as well as to the idea of a continuing building program. The Great Neck, Long Island, survey made in the same year also suggested the possibility of predicting population trends. The concept, as it is stressed in the Framingham report, is that a survey of a school plant should consider more than the quality of existing buildings and the immediate needs for expansion. Individual buildings should be considered as parts of a larger unit, the school plant. Immediate needs, it is suggested, may be adequately and wisely cared for only in the light of future needs.

The St. Paul, Minn., and Omaha, Neb., surveys of 1917 further stressed this concept and made definite advances toward its realization. The purpose of the Omaha survey is explained as follows:

"The Omaha Board of Education has realized that the building program of the past for the city has been indefinite and haphazard. They have fully realized the need for adopting a program covering a number of years before they invest any more of the money intrusted to their care. The object of this survey is to determine the adequacy of the present school plant of this city; the relationship that should exist between the building program and the educational opportunities to be offered to the children; the determination of the facilities which must be provided during the next fifteen years; the location of the new buildings erected; the cost of such facilities, and the ability to pay for them."[7]

This development of a continued building program, which first found definite, clear-cut expression in the St. Paul survey and was so well described in the foregoing quotation from the Omaha survey, was the result of work undertaken by George D. Strayer of Teachers College, Columbia University. The concept was gradually evolved through a group of surveys made under his direction and preceding the St. Paul study. In 1916, N. L. Engelhardt became a member of the staff of Teachers College and collaborated with Professor Strayer in this work. He took an important part in these surveys and his doctor's dissertation in 1918 presented in detail the important aspects of a school building program. His study was divided into three parts: Part 1, Studies in Population; Part 2, Studies Involving the School Plant, and Part 3, Financing a Building Program.

In the development of techniques that made possible the prediction of population trends, the methods used by the Bell Telephone Company were adapted to school needs. These methods served as the basis for expansion. Within a few years following the original impetus, the analysis

A six-room training school for Negroes in South Carolina.

of population trends and residential developments had become an accepted part of nearly all school building studies.

Superintendents in seventy school systems that have been surveyed within the last fifteen years reported on a checking list the changes that have been made in school plants following their respective surveys. In each case they indicated whether, in their judgment, the change was made as a direct result of the survey or an indirect result, and when it was not a result of the survey.

Fifty of these surveys were comprehensive. Table I shows the results of these fifty surveys as far as school plants are concerned. Ten items relating to the development of the school plant

are included. Of these ten items, the first is the most important. We find upon examining the tabulations for this item that thirty-two of the fifty boards of education adopted at some time following the survey a definite building program designed to meet school housing needs for a period of years. Only six of these thirty-two school systems adopted a program without the direct or indirect influence of surveys. In half of the cases the program was adopted as a direct result of surveys, and in ten cases as an indirect result.

Items 2 and 10 concern the building program and provide definite evidence of the importance of the changes indicated. Many reports list significant developments in carrying the school building programs forward. Among the comprehensive surveys, the two that report the greatest accomplishment are those made in St. Paul and Baltimore.

What a Five-Year Program Comprised

As a direct result of the St. Paul survey in 1917, a definite building program for a period of five years was adopted by the board. The building program provided for the purchase of eight school sites, between three and eleven acres in size, and all larger than the average site at the time of the survey; the erection of two high schools, seven junior high schools and twenty elementary schools; remodeling of nine buildings; abandonment of ten; remodeling of the ventilating systems in three buildings and improvement in the lighting in twelve buildings. In addition, larger school buildings were constructed and the administrative offices were enlarged. A bond issue of $3,000,000 was voted immediately following the survey to carry this work forward, and a $5,000,000 issue was voted five years later.

In Baltimore the results were even more striking in certain items. A building program covering a period of ten years was adopted and bond issues of $22,000,000 were voted to carry the work forward. One school site of thirty-nine acres, another of thirty-one acres and two others of more than ten acres each were purchased. Following the recommendations of the building program, two high schools, four junior high schools, two senior-junior high schools and twenty-three elementary schools were constructed in addition to the remodeling of many other buildings and the improvement of lighting and ventilation in others.

The results of the special building surveys are given in Table II. An examination of this table shows that the specialized surveys resulted in approximately the same percentage of change as that accomplished by the comprehensive surveys.

Among the specialized surveys four that may be mentioned especially because of the changes they accomplished are those made at San Rafael, Calif., 1922; West Aurora, Ill., 1927; Danville, Ky., 1927, and Mexico, Mo., 1925.

As a direct result of the Danville survey, the board of education adopted a twenty-year building program, purchased larger school sites, erected two school buildings, remodeled three buildings and improved the lighting in two buildings.

The West Aurora board of education adopted a

TABLE I—CHANGES REPORTED BY SUPERINTENDENTS IN TEN ITEMS RELATING TO THE SCHOOL PLANT WHICH HAVE FOLLOWED COMPREHENSIVE CITY SCHOOL SURVEYS IN FIFTY CITIES, WITH THE NUMBER AND PERCENTAGE THAT WERE A DIRECT RESULT, AN INDIRECT RESULT AND NOT A RESULT OF THE SURVEY

Change in School Plant	*I Following the Survey* No.	*Per Cent*	*II Direct Result of Survey* No.	*Per Cent*	*III Indirect Result of Survey* No.	*Per Cent*	*IV Not a Result of Survey* No.	*Per Cent*
1. A definite building program, designed to meet school housing needs for —— years, was adopted by the board	32	64	16	50	10	31	6	19
2. The average size of school sites purchased after the survey was larger than before	29	58	16	55	5	17	8	28
3. The following larger sites were purchased*	22	44	11	50	8	36	3	14
4. The following number of school buildings were erected in accordance with the building program*	28	56	20	71	5	18	3	11
5. The following number of buildings were remodeled in accordance with the survey building program†	25	50	21	84	3	12	1	4
6. —— buildings were abandoned upon recommendations of the survey†	17	34	11	65	4	23	2	12
7. The ventilating systems in —— buildings were remodeled†	9	14	6	67	1	11	2	22
8. The lighting in —— buildings was improved†	19	38	9	47	5	26	5	26
9. The size of school buildings was increased	20	40	8	40	7	35	5	25
10. The administrative offices were enlarged	23	46	10	43	8	35	5	22

*The tabulation of these items as here presented indicates the number of school systems that reported on specific sites and gave a definite number of buildings.

†The tabulation of these items includes all school systems that indicated that the change suggested had been made in one or more buildings.

TABLE II—CHANGES REPORTED BY SUPERINTENDENTS OF SCHOOLS IN TEN ITEMS RELATING TO THE SCHOOL PLANT WHICH HAVE FOLLOWED SPECIALIZED BUILDING SURVEYS IN TWENTY CITIES, WITH THE NUMBER AND PERCENTAGE THAT WERE A DIRECT RESULT, AN INDIRECT RESULT AND NOT A RESULT OF THE SURVEY

Change in School Plant	*I Following the Survey* No.	*Per Cent*	*II Direct Result of Survey* No.	*Per Cent*	*III Indirect Result of Survey* No.	*Per Cent*	*IV Not a Result of Survey* No.	*Per Cent*
1. A definite building program designed to meet school housing needs for —— years was adopted by the board	15	75	7	47	3	20	5	33
2. The average size of school sites purchased after the survey was larger than before	13	65	9	69	0	0	4	31
3. The following larger sites were purchased*	13	65	8	61	1	8	4	31
4. The following number of school buildings were erected in accordance with the building program*	13	65	9	69	1	8	3	23
5. The following number of buildings were remodeled in accordance with the survey building program†	7	35	6	86	0	0	1	14
6. —— buildings were abandoned upon recommendations of the survey†	5	25	4	80	1	20	0	0
7. The ventilating systems in —— buildings were remodeled†	3	15	2	67	0	0	1	33
8. The lighting in —— buildings was improved†	5	25	3	60	0	0	2	40
9. The size of school buildings was increased	7	35	5	71	0	0	2	29
10. The administrative offices were enlarged	5	25	5	100	0	0	0	0

*See notes to Table I.
†See notes to Table I.

ten-year building program as a direct result of its survey. It also purchased a larger school site, erected one elementary school, remodeled two schools, abandoned one school and improved the ventilating systems in two schools and the lighting in four.

The San Rafael board adopted a five-year building program. In accordance with this program it purchased one school site of twenty-nine acres and another of six acres. It erected one high school building and three junior high schools, remodeled two buildings and abandoned two buildings upon survey recommendations. It increased the size of the buildings and enlarged the administrative offices. All these changes were made as a direct result of the survey.

The board of education of Mexico, Mo., adopted a building program, purchased a site of eighty-eight acres, built a junior-senior high school building, remodeled two buildings, abandoned one building and improved the lighting in another as a result of the survey. A long list of other examples might be given.

There have been a number of unpublished building surveys that have brought significant results. A survey of Portland, Ore., schools made by the United States Office of Education resulted in the adoption of a building program and the voting of a bond issue at the time of the survey to meet the expenses of the first step in the program and a second issue five years later to meet the needs of the second step in the program. An unpublished survey of Greensboro, N. C., by George D. Strayer and N. L. Engelhardt, resulted in the adoption of a building program, the purchase of a school site of approximately one hundred acres, the construction of new buildings and the renovation of others.

These few examples are given to illustrate the type of change that is indicated by the tables presenting the group results. The tabulations represent cities and towns all over the nation which have been looking ahead in meeting their

This type of rural school is rapidly being replaced by modern structures.

school building needs. They indicate that in this large group of cities, as a result of survey influence, the taxpayers' money is being applied to purchase sites that are adequate and well placed; to construct buildings that will really meet the educational needs of the community and that anticipate school enrollment for years ahead; to renovate buildings that are antiquated but may yet serve the community, and, most important of all, to encourage the construction of school buildings that more adequately protect the lives and health of the children.

A report recently published of a survey made by N. L. Engelhardt gives a complete picture of the contribution surveys make to the plant development of local school systems. The author presents survey reports of school building programs in ten widely divergent cities, selected to emphasize how the building program technique may be employed in cities of different economic situation and development as well as geographic location. In the introduction to the book certain accomplishments are noted:

"The survey has in each instance brought about significant changes in the local situation. Lynn (Massachusetts) has begun its program of new construction. elimination and rehabilitation. The junior high schools of Watertown (New York) are in the process of construction. The Fort Lee (New Jersey) High School rises prominently above the Palisades. Paducah (Kentucky) has begun its program of site expansion. Greensboro's (North Carolina) entire program, as outlined, is nearing completion. Augusta (Maine) has taken significant strides in the building of its splendid high school and elementary structures. Jacksonville (Florida) has its program of development under way. Beaumont has voted the proposed bond issue and is expanding along lines of the recommendations made. West Aurora's (Illinois) elementary school plant has been completely redeveloped, and the consolidation of the Rye (New York) districts is the first step to which the citizens are giving their serious consideration."[8]

What steps are to be taken in developing building programs of the type just described? The following outline presents the problems that should be given consideration in the best modern building surveys.

1. Present School Plant.
   a. Analysis of each building—sites, building, service systems, classrooms, special rooms.
   b. Building utilization.
   c. Renovation program.
2. Educational Program in Relation to Buildings.
   a. Type of school organization.
   b. Curricular offerings.
   c. Persistence of pupils in school.
3. Future Building Needs.
   a. Population trends—growth in school enrollment, growth in city population, births by areas for years.
   b. Residential development — residential saturation, location of new homes, where children live, population centers, industrial areas.
4. A building program with definite steps of development for elementary schools, junior high schools, senior high schools.
5. Financing the Building Program.
   a. Financial requirements of the program.
   b. Ability of the community to support the program.
   c. Procedure to be followed in financing the program.

Such a survey may often be made by trained men within the local school system. Even in such cases it is a "penny wise and pound foolish" policy to overlook the possibility of securing expert consultation in planning a long time program which of necessity involves the expenditure of millions of dollars and the health of thousands of children.

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School Children Aid in Conserving Pine and Spruce Forests

Frank S. Betz of Hammond, Ind., has arranged to turn over 25,000,000 pine and spruce tree seeds to county superintendents of schools, according to a recent report. These seeds are for distribution to boys and girls in rural communities to be planted for a future timber crop. Mr. Betz, realizing what a timber famine would mean to the United States, has undertaken the important task of helping to restore thousands of acres to timber production.

To date Mr. Betz has distributed 14,550,000 tree seeds to public schools, boy scouts, corporations, farmers and professional men throughout the United States. Remarkable success has been attained with those millions of seeds being planted. Reports from all over the country indicate a large number of trees growing from seeds distributed in this way.

Detailed instructions on how to plant and care for the seeds are mailed with each parcel going to school children. When the pine or spruce seedlings are three years old they can be planted where the boys and girls want to grow their timber crop.

The Sociological Survey in the Public Relations Program

A thorough and sympathetic study of the community is a necessary research activity of the schools if the schools are to be interpreted successfully to the public

By ARTHUR B. MOEHLMAN, Professor of School Administration and Supervision, School of Education, University of Michigan

THE activity of public relations is community education with respect to the purpose, value, conditions and needs of its public schools. Its purpose is not selfish. It has no ulterior motives. It is merely a recognition of the need for the dissemination of factual information under conditions that have made the older verbal method of community reporting inadequate. School publicity, as it is commonly conceived, is only one aspect of this wider program and only a single activity in its development. A public relations program is essentially a program of adult education, organized upon both a formal and an informal level.

A public relations program presents an intricate and delicate problem. It cannot be solved by hiring a publicity agent and turning him loose upon the people through the medium of the press. Neither can it be solved by an occasional spasm of effort upon the part of the administrator. The occasional committee, "inspired from above," can do little. High pressure, periodic campaigns do not furnish the answer. The public relations problem is complex.

An Objective Approach Is Needed

The approach to the problem of adult community education should be made as objectively as possible. The same exact care required in the instructional field should be applied to public relations. Those who would promote a public relations program are handicapped by the fact that they possess a limited background of experience upon which to base either methods or activities. Because of this lack of knowledge, it is essential that they proceed cautiously.

The background of information upon which public relations practice and method must be based is the sociological survey. No program can proceed far nor can it be completely successful over a period of time if this basic study is neglected. It is essential to know the cultural composition of the district, its means of making a living and of spending its leisure, its aspirations and its ideals. Some of the earlier school surveys pointed out the value of a sociological analysis of community life. Later, school plant studies have presented a partial study of the community. All of these studies and suggestions have been general and fragmentary in character.

Developing a Suggestive Outline

In developing a suggestive outline for the sociological survey of the community, two factors have been considered: first, the types of information essential and, second, the means of securing, administering and using it. The data required may be classed under nine major heads. These include: racial composition; family conditions; economic life; ethical life; community life; leisure activity; leader group studies; history of past community efforts; analysis of social conflicts. In practice, much of the data included under the separate heads might be secured simultaneously and from the same sources. For ease in analysis, the activities have been classified separately in this presentation.

It is first of all essential to know the racial composition of the community in order to understand and to harmonize the various cultural differences in individual and social attitudes. Certain statistical and geographical information is desirable. It is necessary to know the number of native and foreign born, the race and color, the citizenship status, the home language, the educational levels, the intelligence and the reading habits. Modern industrial communities are complex culturally. Within even a relatively small city there may be from half a dozen to sixty national and racial groups, each representing a different national culture. Since much of our social conflict is in reality a conflict of cultures, due to misunderstandings and lack of appreciation of the nonlocal or immigrant culture, the first requirement for the public relations activity is a statistic and geographic description of the different

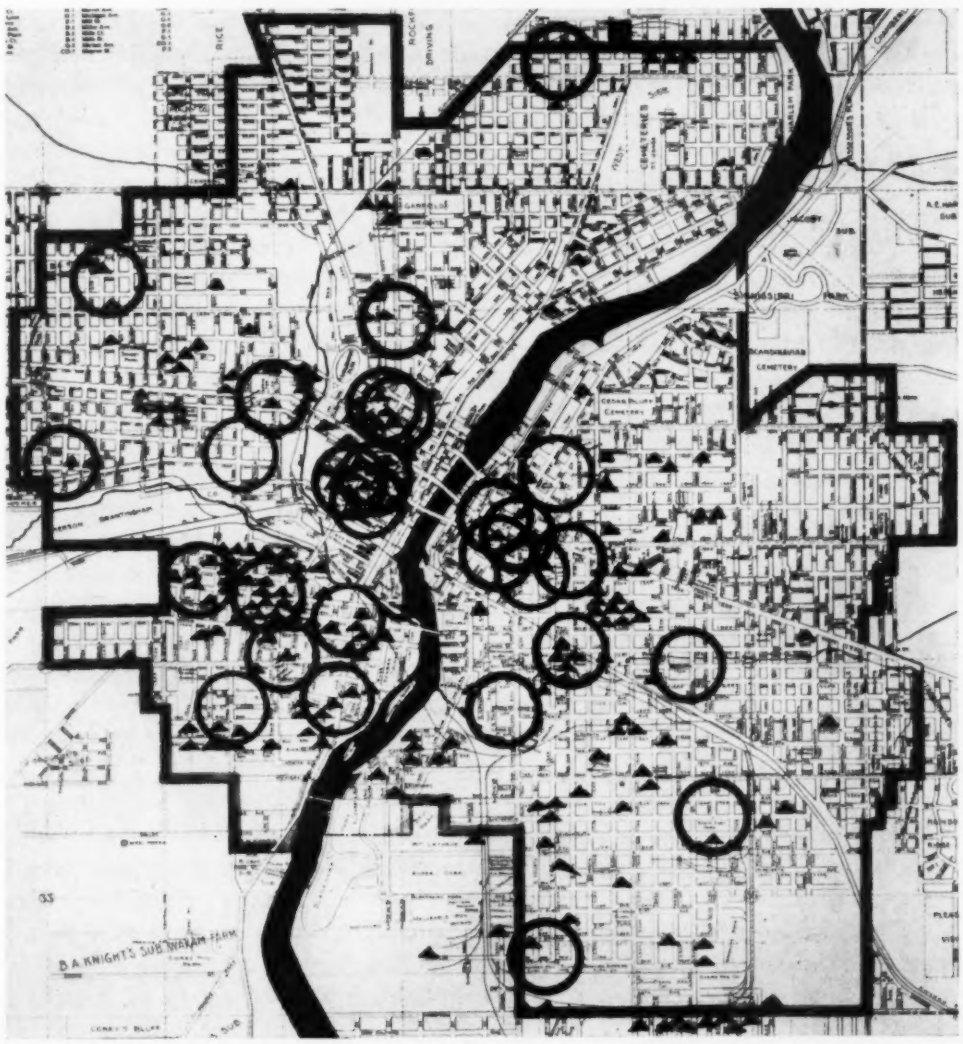
racial and national groups in order that their attitudes and views may be carefully analyzed and considered. Since it will be necessary to make continuous contacts with all individuals in the process of adult education, it is also essential that information be secured with respect to intelligence, educational levels and reading habits of the community.

These data may be most easily secured by organizing the community into educational districts or units and tabulating the information that is gained within these areas. Practically all of this information can be transferred to maps which will serve as a geographic base in determining the future program.

School records adequately developed should furnish much of this essential information. The library, newspapers and the corner store are possible sources. The children themselves may conduct the study as a social studies activity. When visiting teachers or nurses are regularly employed, detailed information may be obtained from their records.

The salient facts about family conditions that are essential for public relations activity include: economic status; age at marriage; size of family; attitude towards children; divorce; separation; employment of the mother; general health; home ownership; type of housing, and condition of the home. In communities with large numbers of foreign born, conflicts between school and parent and between parent and child are frequent. Much of the home difficulty may be traced to this source. Its base, as a rule, lies in the fundamental differences in attitude towards the children as exemplified by the American and the continental cultures.

The immigrant considers the child as an economic asset to be reasonably exploited by the parent; the American feels and insists that the child is all important and reverses the age old attitude of a peasant culture. These conflicts are among the most serious in our school systems and will not be solved until the basic cultural differences are understood, appreciated and intelligently harmonized. Again, size of family and economic status may be definite factors in determining parental attitudes towards the children.



Spot map showing the relation between poverty cases and cases of juvenile delinquency in Rockford, Ill. The poverty cases are represented by the circles and the juvenile delinquency cases by the all black triangles.

The difficulties arising from broken homes and the employment of the mother need no elaboration here. Home ownership is an indication of the relative stability and permanence of the group. The type of housing and the crowding ratio are indexes of significant social conditions.

The economic study should tell the story of how the people make their living. The survey includes the geographic location and classification of industrial, commercial and transportation activity. This may be done through the development of industrial maps. Since location of industry affects housing directly, this map will have a close correlation with type and crowding as shown in the housing maps. A second economic grouping is the retail servicing activity of various types carried on by neighborhoods throughout the city. Although secondary in type with respect to numbers employed, the social significance of such activity within a district or area may be immediately far greater than that of the large manufacturing units.

Types of Economic Organization

Information concerning types of employment, stability of employment and wage conditions is highly desirable. Neighborhood banks are excellent barometers of economic conditions. Periodicity of employment may have an important bearing upon a public relations program.

It is also highly desirable to ascertain the several types of economic organization. These include the psuedo social luncheon clubs, the chamber of commerce, neighborhood economic or improvement associations, employers' leagues, labor unions and other similar organizations. Wherever organization exists, there is an immediate social nucleus around which educational activity may be organized. Each of these diverse organizations has a definite value and a real place in community education.

The ethical life of the community may be studied directly in terms of institutional religious activity and directly through observation of ethical movements outside of the church. The second group is more difficult to analyze because of its lack of organization. It is necessary, however, to recognize the fact that to-day much of the ethical life of a community exists outside of the church.

The location of churches by type, size and economic status is desirable. The social and educational programs of the several denominations must be studied and considered in relationship to public educational activity. Where possible, parish membership should be geographically placed on spot maps. There is a great difference in viewpoint, aggressiveness and solidarity of social organization between the closely knit neighborhood parish and the scattered metropolitan parish.

Since our industrial communities embrace within their limits to-day almost every type of organized religion, the public school's adult educational program will tend to be modified by these conditions.

The survey of community life will include all activities of a cooperative nature that the people carry on for health, for safety, for advancement or for pleasure. They may be classified as health, welfare, government and public safety and cultural.

Health work in the community would include a study of preventive measures to protect the people, such as milk and food inspection, garbage and refuse collection, general sanitation, inspection of the water supply, isolation of contagious disease, hospitalization and general health conditions.

Welfare studies will consider both private and public effort to alleviate poverty, care for the aged and the unfit and provision for reconstruction agencies of various types.

Government will consider analysis by type and by quality. The legal and extralegal machinery of governmental organization should be studied. The apparent and real professional political organization must be understood and carefully placed. The motivating power of the visible government cannot be ignored. Incidentally, the professional political organization is a machine worth studying for its own sake, without considering immediately the important relation it bears to public education.

Cultural Activities of the Community

Cultural agencies include both public and nonpublic direct educational agencies. Knowledge of the libraries, museums, art centers and other informal educational agencies is essential. Music and drama, both professional and amateur, are important educational agencies.

Poverty and crime, particularly juvenile delinquency should be continuously studied and a geographic case location made. These may be related to other fields already considered, such as housing, crowding, family size, economic status and periodicity of employment. Careful and serious consideration should be given to these related fields. Spot maps are best for this purpose because they give a graphic picture that is easy to understand.

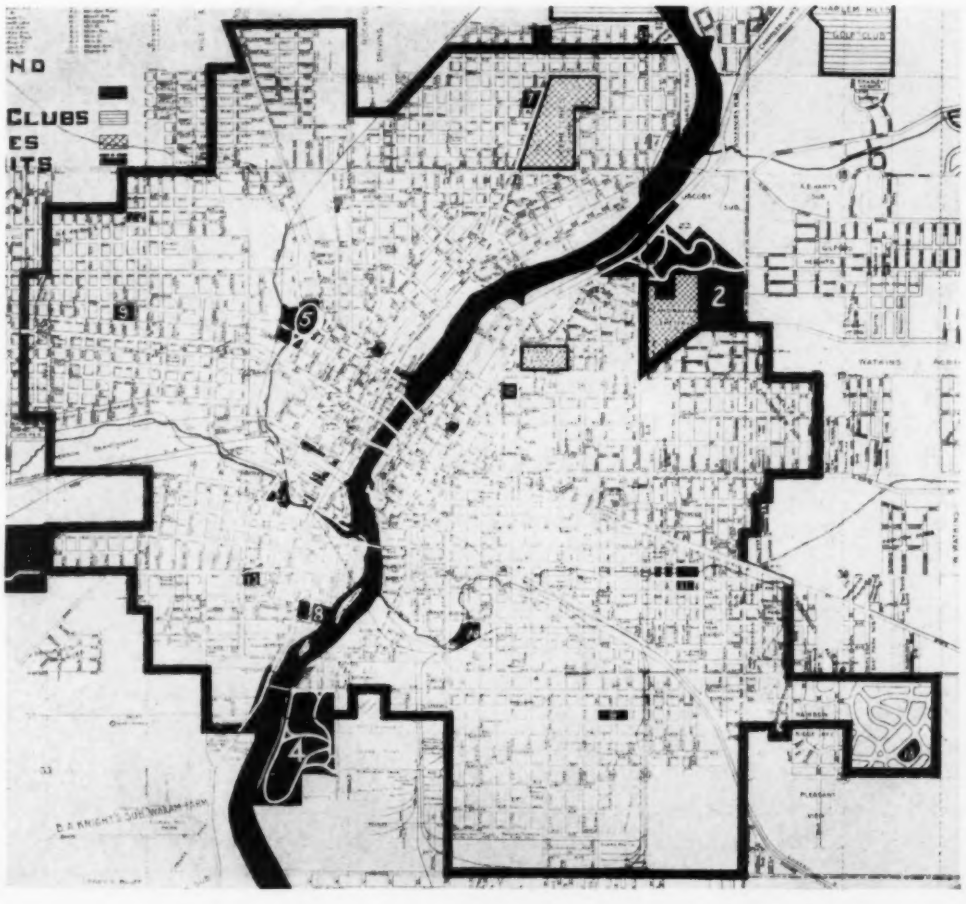
A study of the use of leisure may include three aspects. The first is to determine, both quanti-

tatively and qualitatively, what facilities are available (public and commercial) for recreation purposes. The second consideration is how the people actually do spend their leisure upon a seasonal basis. The third is to secure, if possible, a general survey of what the people would like to do if choice and opportunity were both available. Since the intelligent use of leisure is one of the most important problems confronting any community at the present time, there are many other uses for these data apart from the public relations program.

The leisure activities of the boys and girls should form a large part of this sectional survey. A detailed study of recreational facilities for the youth is indicated.

Except for purely academic purposes, no sociological survey is of much value without a careful study of the leader group. The primary, secondary, and small bloc leaders must be carefully studied, analyzed and classified. In our highly specialized and democratic social organization, there is also much specialization in the leader group from the bottom or neighborhood group to the most outstanding and powerful individuals. These leaders follow the trend of specialization and may be powerful in one phase of life or organization and almost unknown in another. They may be roughly classified as political, social, publishing, financial, commercial, manufacturing, labor, ethical and medical. These again may be considered as native and foreign born, and further subdivided into the verbal or obvious type and the silent or under cover leader. A leader group survey that includes only the figures that appear in the public eye, figuratively beating the drum or carrying the flag, will probably miss the powerful motivating group that seldom appears in public and is scarcely known save in limited circles.

Since members of the leader group are not in any sense completely free individuals in the social organization, a study of them must include all ascertainable factors that, taken together, will account for their attitudes and actions. In a number of instances men in public position have been known to vote for something in which they heartily disbelieved or in a reverse case to fight a movement desperately with which they personally were much in favor. In other words, every leader is motivated and moved not necessarily by his own convictions, but by outside forces that exercise a determining influence. Sometimes these forces are visible, but more generally they are not. Leader groups and leader contacts may run a wide gamut of activity in the community.



A map showing the location of public parks and private recreational facilities, to be used as an aid in developing the social survey.

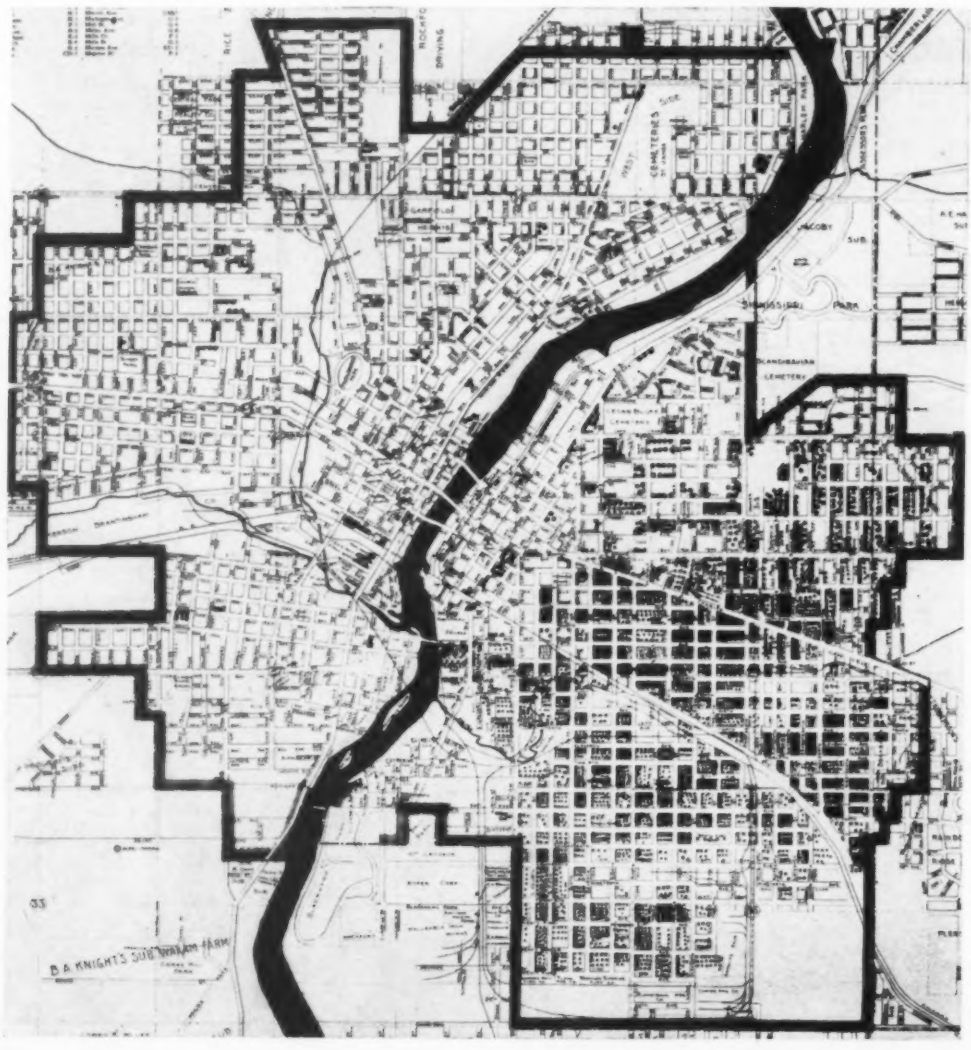
It is, therefore, wise to analyze each leader in terms of all possible pulls and ties. These might take the form of the suggested outline. As an individual, certain factors come into play. Blood and legal relatives may determine actions to a surprising degree. The church, because of its presumed institutional power, exercises an influence upon the leader. His economic activities and banking affiliations will probably determine many decisions. Locally, political parties may have little influence, but the invisible machine boss does mean much.

It is impossible to know too much about the leader group. It is essential that the background, the affiliation, the weakness, the strength and the emotional tendencies be understood. Without this fundamental knowledge many good amateur plans go astray and many an optimist is destroyed.

A newspaper clipping service and a careful individual case study are two methods by which much valuable information may be secured.

Every community has its share of cooperative failures in economic, social and ethical activity. In each of these failures, some people were disappointed and others were hurt emotionally or financially. Since their future attitude will be colored to some extent by their past experience, it is well for the school organization to know definitely and completely the history of these past failures that were rapidly withdrawn from the social stage. Without such information, serious errors may be made in arranging for future projects.

Out of our cooperative society arise many conflicts. Whatever their specific classification, they form stumbling blocks to any constructive activity within given areas or limits. They may arise from political, economic, social, religious or general cultural differences. They may have their inception in a neighborhood fight between two boys which finally spreads to a huge parish feud. They may arise from different time concepts of leisure activity, such as late practicing on a brass horn or a radio or vocal demonstration. They may have been carried over for a generation in a particularly numerous, powerful and emotional family. Public manifestations may range from



In making the sociological survey, a knowledge of the racial composition of the community is essential. The shaded portions of this map indicate the Swedish population of Rockford, Ill., which at the present numbers about 5,550.

"nontalking" to twelve-foot spite fences. They may be humorous or maudlin, but they cannot be safely neglected. Whatever the cause and whatever the group, these conflicts play an important part in community life and politics. All of them should be known and should be tabulated and recorded in some form.

In the development of the sociological survey, several general principles are fundamental to success. These are:

1. The survey should be so organized and so conducted that essential information is secured without arousing any emotional antipathies in the community.
2. The survey, to be of real value, must be continuing in type.
3. The survey should be so organized and administered that certain field agents will have constant and intimate contact with the division under consideration.

The first principle applies specifically to the gathering of information. Since the survey is to be continuous, to avoid emotional disturbance it is necessary that all of the detailed information desired in any specific community be carefully studied and then developed as part of the continuing school census and internal individual school records. Other data may be taken from health department, police, court, municipal and county records.

Data respecting conflicts, leader group, social difficulties and similar material may be secured by the visiting teacher and nurse through home and school visitation. An intelligent organization of the problem will make it possible to carry on a continuous sociological survey without arousing antipathy or suspicion upon the part of the community. It may require a year for preliminary organization but, if during that period, quiet, smoothly operating and effective organization is developed, the time will be well spent.

Interpreting the Community to the School

The third principle means that the activity should be so organized that it can be carried on by existing agents, close to the people, who are in direct and continuous contact with the field. There is already existing in every school organization of any size an excellent field organization. The best plan for this work is to divide the district sociologically upon the basis of elementary building districts. These districts cover every square foot of territory. They are relatively small in size and even the larger districts include little more than one square mile. They are generally the most homogeneous units socially, economically and racially. The elementary school has direct primary contact with the parents through the children. The school may be made the social nucleus for the district.

Since most of the desired information should be taken from existing school records, since the elementary school principal should be intimately familiar with his own district and since this district is the primary unit in the general administrative plan, it is recommended as the most convenient and economical means of organizing and administering the continuing sociological survey.

The general survey plan may be developed by the superintendent and his staff. The types of information, the method of tabulation, the geographical studies and other factors may all be planned to meet the needs of the entire district. This program can then be divided geographically by elementary school districts and the responsibility for the district delegated to the elementary principal. Some training in survey technique may be necessary in the case of the principal and also for the teachers. In planning and executing this program, the implication should be clear that the elementary school principal is the responsible community leader in his specific district and that he must be so familiar with all activities within the district that feelings and attitudes, movements and activities can be transmitted to the superintendent to keep him informed about the community.

A Current Problem in Education —the Questionnaire

The research division of the N. E. A. has again prepared a valuable bulletin on a current problem in education. The January *Research Bulletin* of fifty pages is concerned with the problem of the questionnaire. The aim is to answer these questions:

1. Do questionnaires serve useful purposes, and if so, what are they?
2. How may questionnaires be better prepared?
3. How may the number of questionnaires be reduced?
4. How may the results of questionnaires be made more useful?
5. What is the size and character of the problem of dealing with questionnaires as it is encountered by superintendents of schools?
6. What should be the attitude and practice of superintendents of schools in dealing with questionnaires?
7. How may the various interested agencies cooperate in an intelligent regulation of the questionnaire problem?

Editorials

The Schoolhouse as a Community Center

THERE is a growing use of school buildings as community centers not only in the smaller towns and cities, but also in the larger cities, especially those in which great distance from the downtown center is a factor.

To the superintendent this movement has much significance. Not many years ago the school was a forbidding edifice in which children were taught by day and which was then cleaned by the janitor and closed for the night. Only those pupils who had been "kept in after school" stayed around the building when classes were finished. To-day the pupils remain at the school building either working in the library, practicing in the band or dramatic club, debating, using the swimming pool or the gymnasium or participating in healthful athletics of one type or another.

In the evening the parent-teacher association meets, very often local societies use the auditorium, the school basket ball team performs in the gymnasium and community cultural clubs hold lectures or debates. Almost every night, particularly in the winter season, the schoolhouse is illuminated and occupied. One high school in a city of about 100,000 reports that out of twenty-seven available nights in one month, the auditorium or the gymnasium was in use for community meetings twenty-one times.

It would be extremely difficult to gauge the value of this use of school buildings. The formation of the parent-teacher association unquestionably brought to the school systems of the country an immense amount of good will and better understanding. With the school open to all citizens, a further understanding of the value of the school to the city is fostered. With practically every taxpayer making an inspection of the school property and equipment several times a year, the work of superintendents will be more greatly respected, bond issues will be more easily approved and education will take on a newer and greater importance in the lives of all.

By constant use, the school building also becomes something of a permanent exhibit. Often parents see equipment being used in the school that has an application in the home. They are delighted to see in operation that which will lighten their own domestic burdens. Several mil-

lion parents visiting the schools several times a year have the opportunity to inspect the cafeteria and there they learn what types of foods have been selected by a trained dietitian for bettering the health of their children. Better habits of eating are introduced into millions of homes and to some extent the health of the nation is improved.

These are but a few of the benefits that may result in furthering the use of schools and opening them to the community as much as possible. Every superintendent should encourage this trend and by so doing engage in one excellent form of adult education.

How Far Can Education Educate?

THERE has been growing pessimism during the last decade regarding the possibility of education doing anything more than winnowing the chaff from the wheat. Some prominent scientific students of human development have promoted the view that the route which an individual must pursue in his physical, intellectual, moral, esthetic and temperamental development is determined at birth. When the child appears among us he is predetermined so that the home or the school or the community cannot make much if any impression on him. What his ancestors were he must become, regardless of any educative influences that may be made to play on him. Biologists who have become interested in the development of the child apparently endorse the proposition that heredity plays the chief and possibly the only rôle in human development.

The nonspecialist in biology and especially in heredity has been confused by the conflicting doctrines that have been promulgated by various so-called authorities during the last ten years or so. Such persons can lessen their confusion by examining "The Child's Heredity" which has just come from the press of the Williams and Wilkins Company, Baltimore. The author, Paul Popenoe, has given a great deal of attention to the subject of heredity. He was formerly editor of the *Journal of Heredity* and he has conducted illuminating experiments in this field. He has brought together in this volume of about three hundred pages all that is known to-day regarding the extent to which the child is predetermined in his physical, intellectual, esthetic and temperamental characteristics by heredity. Fortunately Mr. Popenoe possesses literary gifts that have made it possible for him to present highly technical material in intelligible, attractive and even entertaining English. He does not deviate from the scientific trail but he describes what can be seen along the route in terms that the nonspecialist—which includes most educators—can understand and also can enjoy. It is not beyond reason to say that everyone engaged in the training of the young should know as much about the influence of heredity upon the child's development as is contained in this book. Even the mechanisms by which heredity operates are described in everyday vocabulary and phraseology for the most part.

It may be added that "The Child's Heredity," while showing that the child is the heir of the past to a large extent, shows also that he is plastic and modifiable to some extent. He shows in his development the influence of his remote ancestors and also those nearer to him. But he also shows deviations from ancestral traits. Some of these deviations originate in the germ cell but others are produced by environmental forces. Herein is seen the opportunity for education, viewed from a biological standpoint. Mr. Popenoe's résumé of experimental data regarding heredity and his interpretation of these data should give educators encouragement in the planning of educational programs designed not only to equip the child with specific knowledges and skills but also to augment his intelligence and to adjust his temperament and character to the world in which he must live and by which his well-being is in large measure determined.

Building Schools for Comfort and Health

ONE of the most notable achievements in the improved education of to-day as compared with the education of a quarter of a century ago is the strides that have been made in the planning and building of all types of schools. Methods of teaching have advanced with almost unbelievable rapidity and for some years the profession was far in the lead of the physical plants in which the pupils were housed. But in recent years there has been a new realization of the importance of adequate schoolhouses and the buildings are now recognized as an integral part of education itself.

The modern school is so planned that the teachers and pupils alike can do better work and can enjoy more fully the work that they are doing. Because of this increased efficiency schools are less costly than when they were handicapped by poor facilities, which in many instances were fire traps and breeding places for disease germs. The new schoolhouse takes cognizance of the health

of the pupil and money is well spent to see that uniform heat and ventilation are secured, that flooring is such that those using it will not tire too quickly, that lighting is of the type that will help the worker without ruining his vision and that the seating arrangements are such that proper posture and ease are combined.

The pot-bellied stove in the middle of the room, the hard bench and the lanternlike light all went out with the birch switches and corporal punishment. Dark and dingy cloak rooms have been replaced with sanitary lockers for the pupils' coats and hats; well worn and creaky wooden stairs have given way to substantial and easy tread steps or elevators, and the combination of all of these advantages sends the pupils and teachers home in the late afternoon as capable and as alert as when they arrived at the school in the morning.

Undoubtedly there will be still greater improvement in schoolhouse building and the superintendent should remember that for every comfort that is provided, dividends will be paid in added teacher efficiency, in fewer pupil failures and in a happier, healthier school community.

Is the Teacher a "Hired Man," or a "Factory Hand"?

TWENTY men engaged in the investigation of education and in the instruction of candidates for teaching have been meeting together for a number of years for the purpose of discussing the results of educational research and current movements in American schools.

Recently the discussion has been concerned with the change that seems to be taking place in respect to the freedom and individuality of the classroom teacher. All but two of the men in this group are convinced that the teacher is steadily becoming more and more of a cog in a great impersonal machine. The professional memory of most of the men extends over a period of twenty-five years at least, and they think that they have observed a constantly increasing tendency for educational administrators to eliminate all personal contact with the teaching staff. They feel that regimentation is coming, in some places has already come to dominate educational administration so that the teacher does what he is told to do and is not asked to express his views concerning policies that should be followed in regard to materials of instruction or methods of teaching. The phrase commonly used by these men who deplore the disappearance of personal relationships in the administration of the schools is that the teacher is a "hired man" or a "factory hand." His functions are prescribed for him and he is told not to deviate from the course laid out for him or he will be professionally decapitated.

There are, however, those of us who cannot agree with the belief that education is becoming so mechanized that there is no leeway left for individuality in the classroom. When the schools of yesterday and to-day are compared, one is struck with the increasing tolerance in the relations of administrative officers to classroom teachers. Teachers possess more individuality to-day than they did formerly. They are more capable, more original, more dynamic. They are less inclined to depend upon autocratic guidance; they are not so generally afflicted with inferiority complexes and there is less formalism in their training. For these reasons they cannot be so easily induced to follow mere routine even if school administrative officers desired to routinize them.

Most of the men engaged in the investigation grant that the typical modern teacher is more capable of playing an individual rôle in the classroom than was the typical teacher of a quarter of a century ago. Nevertheless, they maintain that administrative machinery has become or is fast becoming so gigantic and overpowering that the teacher is unable to preserve his independence and initiative, once he enters the system. The men who hold to this view quote such books as Martin's "The Meaning of a Liberal Education" in support of their pessimism. They compare the schools in Kansas City of an earlier day under Superintendent Greenwood and in St. Louis under Superintendent Soldan with the schools in most cities to-day and they maintain that there was more personal relationship and more "humanity" in the former than there is in the latter.

Are these men interpreting correctly what they observe in the schools? They see that the educational system in our cities is becoming huge and complex and they conclude that inevitably the system must become impersonal and mechanistic.

The NATION'S SCHOOLS has asked a number of men and women who are situated so that they can judge accurately what is happening in our schools to discuss the spreading view that the American school system is losing its soul and is substituting instead an iron régime. If any reader of these lines has convictions in regard to the matter, an unprejudiced expression of these convictions will be welcomed. We should like to publish the views of teachers as well as administrators in response to the charge that the classroom teacher has become or is fast becoming a "hired man" or a "factory hand."

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Your Everyday Problems:

Some Problems in Character Education

By JOHN GUY FOWLKES, Professor of Education, University of Wisconsin

SEVERAL inquiries that have been received recently concerning character education indicate a revival of interest in this all important subject.

One of the questions that appears frequently pertains to the real meaning of character education and to the content that should be included under this name. When a sampling of the courses of study in character education is analyzed, a wide variety of topics and materials is found. Some courses consist largely of a study of manners and customs, some lay an exclusive emphasis on a group of selected personal traits or characteristics, others give major attention to moral codes, while still others, particularly among the church schools, put most of the work in this field on a religious basis.

What Is Character Education?

In the last analysis, it seems that the term "character education" may be interpreted correctly as "all education." The total educative experiences of a human being affect the character of that being. In other words, the physical, mental and social elements, taken together, constitute the character of the individual. Consequently, then, at least insofar as public schools are concerned, it seems that this revived interest in character education is an evidence of a realization that the real function of education is, as Courtis expresses it, "the integration of personality," and that no group of factors affecting this integration can safely be neglected. Prominent in this process of integration is the list of traits that should be stressed. Next, comes the question as to whether such traits should be taught in connection with other subjects or separately. In other words, the question arises as to whether the direct or indirect method shall be employed. Also in this connection comes the question of whether separate periods shall be reserved for character education. Then arises the question as to how grades on such traits shall be assigned and, last, what use shall be made of such traits.

Unfortunately, the usual list of social traits included in a character education course of study has been chosen entirely on the basis of a few rather than many criteria. One method of choosing this list of traits is that of an arbitrary listing by a few people. One reason for the somewhat unscientific basis for choosing the list of social traits that should be stressed in character education is the elusive nature of such traits and the high degree of their intangibility. After all, however, desirable social traits depend upon the attitudes, desires, appetites and standards of a people and, consequently, the criteria for choosing a list of these desirable traits should be based upon a collective group recommendation of the large social order involved.

During the past three years, I have worked with various groups in Milwaukee and at the University of Wisconsin in formulating a list of social traits that should be included in the school curriculum. The result of the work of these various groups has been "another list of social traits." But at least an attempt has been made to choose the traits on several criteria rather than on one criterion. Four major criteria were used in the project. They are as follows: an analysis of 374 conduct codes or social trait lists; the judgments of more than 300 teachers, principals and superintendents; the judgments of more than 300 laymen, including professional and business men; technical definitions of words as determined by Webster's Unabridged Dictionary, Krapp's "A Comprehensive Guide to Good English" (published by Rand McNally and Company), Roget's "Thesaurus of English Words and Phrases" (published by The Thomas Y. Crowell Company) and Charters' and Waples' "The Commonwealth Teacher Training Study," Chapter II, (published by The University of Chicago Press).

"Another List of Social Traits"

It is obvious that certain objections may be raised to these criteria, but at least they have the merit of a fused rather than an isolated judgment, and of a standard rather than a vulgarized definition of terms.

The list of social traits compiled on the basis of the criteria just enumerated resulted in eight major headings with subdivisions as follows: (1) considerateness—kindliness, sympathy, respect,

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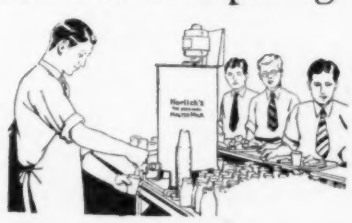

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unselfishness and tact; (2) cooperation—helpfulness, loyalty, obedience and openmindedness; (3) leadership—independence, initiative, originality, resourcefulness, self-confidence, ambition, courage and decisiveness; (4) courtesy—politeness, affability and civility; (5) industriousness—diligence and perseverance; (6) self-control—reserve, modesty, judgment, poise, dignity and patience; (7) dependability—promptness, trustworthiness, reliability and responsibility; (8) honesty—fairness, frankness, truthfulness, sincerity and accuracy.

A Direct or Indirect Approach?

With respect to the question of direct and indirect character education, I can do no better than quote some excerpts from an excellent article by Dr. George D. Betts in the *Journal of the National Education Association* for May, 1929:

"Shall the approach to character education in the schools be direct or indirect? For the administrator, direct. Otherwise no consistent and continuous emphasis will be placed on character outcome throughout the school. *Laissez faire* has been weighed in the balance and found wanting.

"For the teacher, direct. If he does not have in mind the qualities of character he seeks to develop in his pupils and plan his instruction with this in view, his responsibility has not been fulfilled. It is a truism in education that only those objectives that are clearly defined and faithfully sought are actually achieved.

"For the pupil, both direct and indirect. The psychology of childhood and youth would seem to dictate that for those below the age of self-criticism, ideal forming awareness of the self, the approach should be predominantly direct. The situation rather than the trait should receive chief emphasis.

"For the curriculum, direct. Curriculum content is, or may be a large factor in defining desirable character traits and in stimulating their pursuit. Some proportion of the curriculum should be determined with this objective definitely in mind.

"For the time schedule, largely, but not wholly, indirect. In most cases the teaching of desired traits and attitudes can probably best be done in connection with regular class procedure or the ordinary run of extra-curriculum activities. Every teacher should feel free, however, to omit arithmetic or language for a period now and then and give the time to consideration of character problems as occasions arise.

"For pupil management, direct. . . . Pupils should be given the largest measure of responsibility for the group life of the school which their development enables them to use successfully. The organization and management of the school should aim first of all at making it a true democracy where good traits of character are at a premium."

In keeping with these recommendations, it seems wise to reserve any special periods for character education for inventory and corrective purposes rather than for developmental and introductory purposes. In other words, special periods should be devoted to the clarifying and reteaching of material that has been covered during a preceding period.

Despite the general assumption that it is extremely difficult, if not impossible to measure personal traits, it is just as generally and probably more emphatically recognized that such qualities as respect, tact, loyalty, politeness and other similar characteristics do exist. The matter of identifying these personal factors and determining the quality of their influence is something that is badly needed at the present time. Even though the problem is baffling in its perplexity, it behooves professional educators to persist in developing a satisfactory scheme of measurement. As is true with respect to the measurement of pupil performance in all fields, several possibilities are available in the grading of character education.

A CHARACTER GRADING PLAN

How are you and others affected by his appearance and manner?	☐ Sought by others ☐ Well liked by others ☐ Liked by others ☐ Tolerated by others ☐ Avoided by others ☐ No opportunity to observe
Has he a program with definite purposes in terms of which he distributes his time and energy?	☐ Engrossed in realizing well formulated objectives ☐ Directs energies effectively with fairly definite program ☐ Has vaguely formed objectives ☐ Aims just to "get by" ☐ Aimless trifler ☐ No opportunity to observe

It is essential in measuring the character of school children to recognize both information and performance. For the sake of illustration, let it be supposed that a child knows the correct answers to a series of fifty courtesy situations, such as the following: "To be courteous, what should I do or say when I see a classmate or

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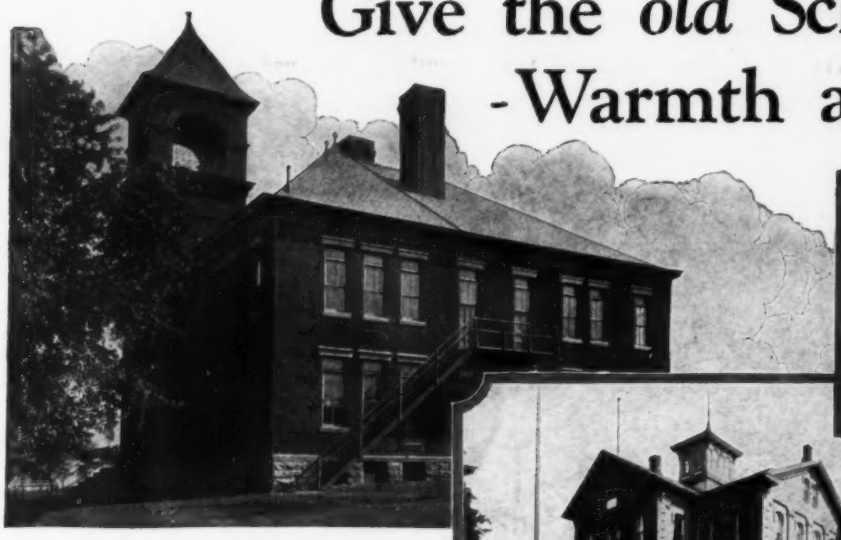
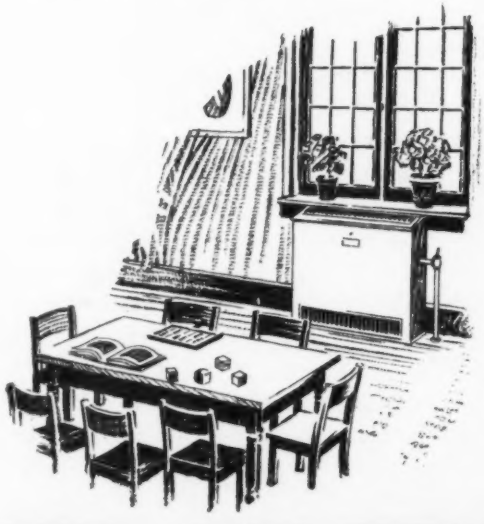


The John Porter School, Easton, Pa.

Right, The Public School in Catawissa, Pa.

A classroom in the Catawissa, Pa., Public School, showing one of the PeerVent installations.

Pioneers in Unit Ventilation



BECAUSE the building is old is all the more reason for employing modern heating and ventilation to protect the health and stimulate the mental activity of the pupils. PeerVent Systems can be installed in old school buildings as readily and easily as in new. In most schools existing piping can be used for the new units, and for the air intake small openings are provided through the wall directly back of the unit or if necessary, the air inlets are brought in just above the window sill. This method entirely avoids the drafts and dust-laden air that otherwise come through open windows.

The two schools shown in the picture, both old buildings, were recently equipped with PeerVent Heating and Ventilating Units without disturbing existing direct radiation.

PeerVent Units give good results in connection with any high pressure, vapor, vacuum or gravity steam heating system and are *absolutely quiet* in operation.

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teacher on the street?" Proof that a child knows the correct answer to these fifty situations gives no assurance whatsoever that his performance will be in keeping with his knowledge. In other words, both knowledge and performance must be measured.

In accordance with grading systems in other curricula offerings of schools, one of the common practices in the grading of character is the employment of the letters A, B, C, D and E, or the 1, 2, 3, 4, 5 basis. Sometimes the divisions of these systems are defined as excellent, good, fair, poor and failing. In other schemes the five points are defined in terms of frequency of observance by the words, always, usually, sometimes, seldom and never. Other schemes use the profile graph which shows with reference either to percentage or word standard the degree of possession or observance of desirable personal traits. Still other practices patterned after the "Personality Report" plan, published by the National Council on Education, consist of a series of questions as shown in the accompanying character grading plan. On the right hand side of this grading plan space should be left for recording instances that influence judgment of the pupil's character.

Unfortunately, there is little if any scientific evidence available concerning the relative superiority of the various forms of grading in character education.

Is Grading of Any Value?

As is true with respect to measuring the abilities and capacities of a child in any field, the assignment of grades in character education may or may not be of significant value. The mere assignment of grades in character education furnishes a report of the *status quo* of the child with respect to a given factor. Unless, however, the grades are used as a basis for discovering discrepancies and the giving of remedial treatment in correcting maladjustment, grades in character as in other fields will be largely useless for purposes other than classifying and promotion. In other words, it is just as essential, if not more so, to recognize the need of inventory, of diagnosis and of remedial work in character education as in any other field. As yet the assignment of grades in character education is an open question. We cannot yet measure the elements on which it seems desirable to give grades. Ranking or rating by teachers and actual performance tests are the best measures of behavior traits available to-day. Performance tests are mostly confined to two or three traits and do not lend themselves to group measurement effectively. Rating or ranking is open to greatly varying degrees of errors, dependent upon the skill and judgment of the rater, the mechanics of the rating scheme and the degree of certainty with which the rater rates the performance under observation. Great caution should be used with any device. It is hoped that the next decade will see a quantitative basis for the answer of all the problems herein raised.

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An Experimental Course in Character Education

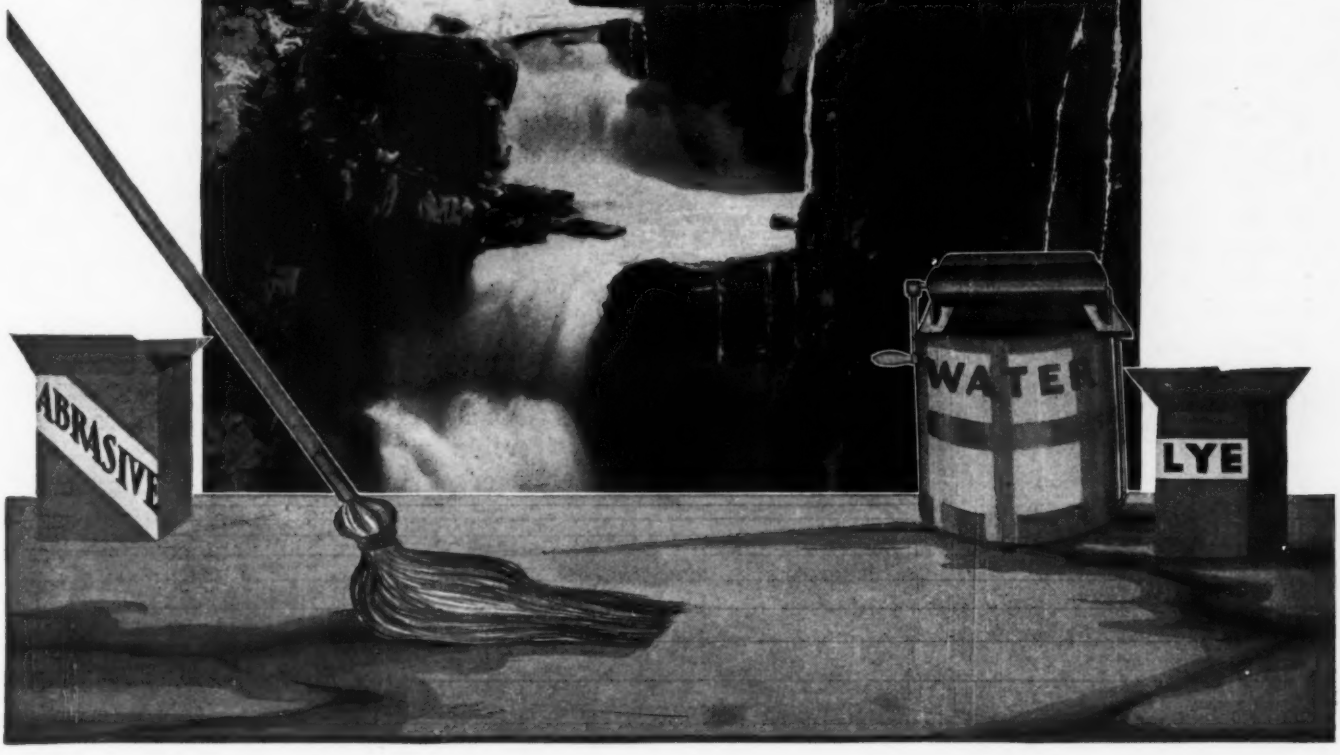
Beginning the second semester the West York Borough Schools, West York, Pa., introduced an experimental course in character education. This course is designed to carry over a period of one semester and is used in the junior high school. Grades seven and eight are receiving instruction along this line at the present time.

A few teachers who have done some research work along this line were selected to arrange the course and offer the instruction. The committee in charge of the work is composed of Myra P. Rodgers, Myra O. Sheaffer and the supervising principal, M. E. Gladfelter. Miss Sheaffer, who is the director of guidance, offers this course, while the purpose pages and lesson plans are arranged by Miss Rodgers and Mr. Gladfelter.

Each seventh and eighth grade class is given definite instruction one period of each week. The instruction is built about a purpose page which contains a series of poems and extracts applicable to the theme of that particular lesson. This page also contains story references and suggestions for the teacher.

The second page of the lesson plan contains the list of situations. This list is composed of actual school situations centered about those major traits most common to all individuals. These situations are selected so that they will have a definite relation to the theme set forth on the purpose page.

EROSION!



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to help solve your floor problems

Practical School Administration:

Why Superintendents Should Plan Their Buying Now

By PHILIP LOVEJOY, Assistant Superintendent of Schools, Hamtramck, Mich.

SOME months ago a mother approached me with the request that I talk on the subject of "Procrastination" before the group of young men with whom I met once a week for informal discussions. She said that her boy was a capable chap and that he had splendid moral qualities and a very promising future, except for one failing—that of procrastinating.

Many school executives are in the same position as was that boy. They are capable individuals but they do have one objectionable habit—they procrastinate. M. R. Keyworth, superintendent of the Hamtramck schools and president of the Michigan Education Association, has spent considerable time in training his junior executives to overcome this habit. Some time ago he had printed for use in each office and classroom in the system the following:

> PLAN YOUR WORK
> THEN
> WORK YOUR PLAN

An entire editorial to teachers was based on this same topic.

The individual who plans his work well in advance, if he uses any foresight at all and has an eye for details, is going to eliminate the majority of the errors that might otherwise occur. School men are seeing more and more the value of carefully prepared plans. As to how far in advance these can be made with safety may still be a moot question. There is agreement, however, on a desire to foresee just what may arise in any given branch of educational activity. Courses of study, standards of distribution, means of procedure, techniques of appraisal, objective test check sheets and regulations and policies of a board of education are all steps toward the elimination of this habit of procrastination.

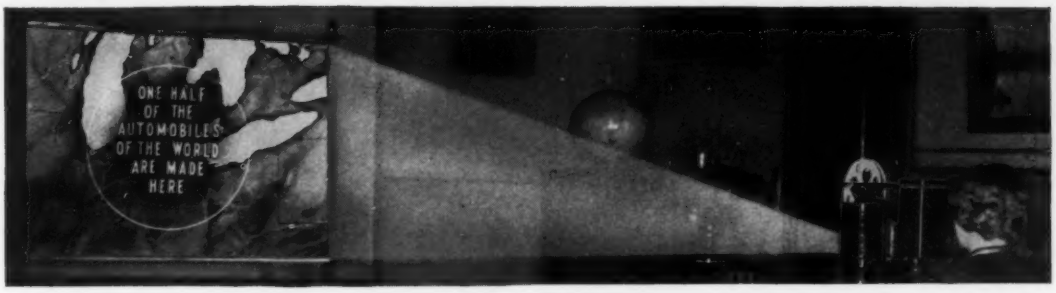
School supply houses, nevertheless find that their peak business is done in the latter part of July and during August, with numerous hurry up orders received in the early days of September. Orders do not arrive until almost time for the supplies to be used. Some boards of education are endeavoring to set forward their period of purchase to get in ahead of the rush. This ensures better service. Furthermore, it tends to do exactly what President Hoover has asked this country to do—stabilize labor and reduce seasonal occupations. A school system is not a thing of the moment. It is a continuous entity with a long, forward looking program of achievement. Because of this, it is necessary that plans be made well in advance for all of its activities.

Considerable progress has been made with standards of distribution in the Hamtramck school system. These tend to eliminate procrastination as far as supplies, books and equipment are concerned. A continuous period of objective testing and experimentation is conducted from October to October. The principal initiates tests to check the standards of distribution in force. Directors of instruction, charged with the creative work of the system, set up experiments to check what will be necessary in the field of supplies if certain results are to be achieved. By October, after a twelve-month period of experiment, it is fairly well known what supplies will be necessary. Lists are tabulated by the department of instruction and are forwarded to the department of finance on the first of the following December. By February, these have been translated into money costs and have been included in the preliminary budget for the following fiscal year, beginning July 1. The actual period of use begins September 1 of the year following the October period of completing the experiment.

The Value of Early Buying

Thus procrastination has been eliminated in the field of supplies, books and equipment. The course of study has been planned well in advance. The materials necessary for the teachers in utilizing the course of study have been determined and the means of appraisal have been prepared. A forward looking dynamic program with a definite objective is the result.

By having the list of supplies necessary for the following year as early as the preceding December, plenty of time is given for a complete tabu-



'Half the world's cars come from this small area'

Unless they live within that area, your pupils cannot visit America's great automobile plants . . .

. . . but you can give them something even better than a trip to Detroit . . . With this new teaching device you can bring Detroit TO THEM.

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They can do *more*. Without leaving the classroom, they can not only visit an automobile plant, but also make rapid side trips to a Malaysian rubber plantation . . . an Akron tire factory . . . a plate glass plant . . . a refinery whence comes the gasoline that drives the car.

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lation of these supplies, for the subtraction of the anticipated inventory and for the preparation of the bid lists. In the Hamtramck system, therefore, it is possible to purchase all educational supplies by the middle of March and have them arrive early in April, thus getting ahead of the supply rush. Better service is secured and the first run of the supplies is received.

Industry's Example

It may be argued that conditions may change in the interim period and that this preparation is too far in advance. Also that education cannot progress with such definiteness. The reply is that this procedure is working on such a basis in at least one community and that objective instructional tests bear out the feasibility of such a procedure. One has but to turn to industry to seek parallels. In January, 1930, Christmas cards for December, 1930, were being advertised. Calendars for 1931 have been on the wholesale market for several months. While the majority of individuals in the northern part of the country are freezing with the unusually cold winter, magazine writers are submitting stories advocating swimming and mountain hikes as a means of escaping the heat wave of July. Research laboratories are months, if not years, ahead of production on industrial products. The schools can hardly refuse to follow suit.

There arises at this time the question of the summer vacation. Probably many school men have attended their Rotary or Kiwanis or other club meetings in the early days of June to be greeted with, "Well, Bill, your work will soon be over. How fine it must be to have a long summer vacation. I wish I were you." This signifies how little the average citizen knows about the business of education. The superintendent does not have a long period of inactivity in the summer months. While others are enjoying the seashore, the superintendent is busy putting his schoolhouse in order.

As a small boy I often wondered why there was a long summer vacation. Often it grew rather tedious. I wondered what was happening at the school. Even as a teacher I did not have much concept of what went on during the summer. I noticed that the janitors were always on the job but thought that they just had an unusually long period for cleaning. As a principal, I discovered that the summer offered a period for introspection. I also discovered that it could be a period of inventory and appraisal of results obtained and that it could be a period of wise planning for the subsequent school term. Then, when I would be in the midst of the most serious thought, a carpenter would appear to fix the window that had been sticking for the past five months. When the carpenter had finished and the thought process had become active again, the painter would appear and suggest that he had been sent to varnish the floor and would I please move the entire office force and equipment into the corridor so that the needed repairs could be made. Thus I discovered one reason for the long summer vacation. It has been chosen as a time for the maintenance department to prepare the plant for the long winter ahead. This is probably a correct assumption.

In large hotels practically always one floor is closed to the public. This is for redecoration and general repair. In periods of great inactivity, such as we have been recently experiencing, more than one floor may be closed at a time in order to take advantage of the unusual conditions and be prepared when the period of prosperity in hotel business shall again be at hand. Hotels are built with this in mind. No hotel is ever utilized to its capacity fifty-two weeks in a year. Its bond issue and operation and maintenance costs are all charged off on the basis of a percentage of occupancy. No manager ever makes the mistake of placing this figure at 100 per cent. In other words, the hotel is so built that this percentage of occupancy will pay out the obligations. Thus, while a portion of the hostelry is paying off the obligation, the inactive portion is being prepared to do its share in the near future.

School Plant Maintenance

Schoolhouses are not built that way. It would be unwise, because schools are financed by public money and each generation must pay for its share of education. An educational plan is made to meet certain local conditions. The plan is made flexible and elastic so that it can be expanded to meet changed conditions. The schoolhouse, however, is planned to have a working capacity much higher than industrial institutions. The question of plant maintenance becomes, therefore, a thing of real import. It is true that school plants are not operated twenty-four hours a day, although the general period of use is being greatly extended. It is impractical to close off a room for repair and redecoration as is done in a mercantile establishment. Regardless of business conditions, children still go to school. A schoolhouse would represent an unwise expenditure of money if portions of it were idle 25 per cent of the time. In fact, industrial conditions do not apply at all to school plants.

In school plant maintenance, therefore, entirely different procedures must be followed. It becomes more necessary than ever for the school man to

Now Another School Knows the Value of BLOX-ON-END Floors

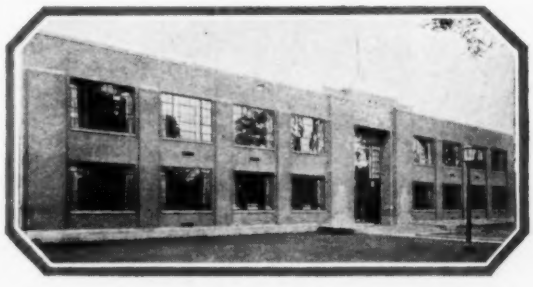
Partial view of shops in State Trade School, Hartford, Conn. Floored with 16,500 sq. ft. of Bloxonend.
CARL MALMFELDT
Architect

ALTHOUGH the above building is comparatively new the students and faculty have already become enthusiastic boosters for Bloxonend floors, because it doesn't take long for a Bloxonend floor to demonstrate its true worth.

Leading School Architects everywhere agree that no other flooring material has yet been found to satisfactorily fill the place of modern Carter Bloxonend for school shops and gymnasiums.

Architects know there are never any splinters or soft places in Bloxonend floors, because the tough end grain is the surface of the floor—they know that Bloxonend of Southern Yellow Pine is exceedingly sturdy and of splendid appearance, is smooth, quiet and resilient—and, that the life-span of a Bloxonend floor, even in a busy school shop, is greater than the life-span of the person who buys it.

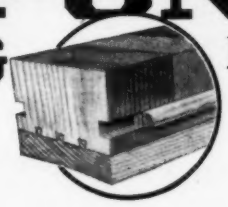
Our booklet "School Floors" contains much information of value to the School Architect or official. It also tells how Bloxonend is made, gives specifications for laying and illustrates representative school installations. May we send you a copy? A postcard or letter will bring it promptly.



An exterior view of the State Trade School, Hartford, Conn.

CARTER BLOXONEND FLOORING COMPANY
KANSAS CITY, MO.—*Branch Offices in Leading Cities—See Sweet's*

BLOX-ON-END FLOORING



Lays Smooth
Stays Smooth

Bloxonend is made of Southern Pine with the tough end grain up. It comes in 8 ft. lengths with the blocks dovetailed endwise onto baseboards.

Leading School Architects specify Bloxonend Floors for Shops and Gymnasiums in the country's best schools.

HAMTRAMCK PUBLIC SCHOOLS
Objective Maintenance Check Sheet No A

Building — High School — Date — April 1 1930
Unit — Room 202 — Checked by — P.C. Lovejoy

DIRECTIONS: Fill this form on first day of Jan. Apr. Jun. Oct. under direction of Asst Principal. Jan & June to be complete analysis. Apr & Oct to list only repairs needed. Asst Prin will check and issue requisitions and check off on completion. He must check with Chief Engr and Finance Dept for approval. These cards must be kept on file permanently.

ITEMS			Condition					Parts Missing or Remarks	Corrected
Line	List	Description	A (Excellent)	B (Slightly worn)	C (Average No repair)	D (Fair Not over 2 mos.)	E (Poor repair at once)		
1.	Ceiling	421 "B"				✓		Should be painted this summer	
2.	Walls	421 "B"				✓		Should be painted this summer	
3.	Drapes	None							
4.	Shades	452 X	2	1	1	2	1	Class D Hang crooked E roller broken	
5.	Floor	526				✓		Need sanding - rather rough	
6.	Window Frame	473 S			OK				
7.	Glass	543 DSA			5		3	Class E 2 panes DSA 8½ x 12¾ 2 panes DSA 15 x 24	
8.	Blackboards	1742			OK				
9.	Clocks	537 I			OK				
10.	Electrical Apparatus	Light Sec 9001		3	1	1	1	Class D Shade cracked E 100 W 110V Bulb burned out	
11.	Telephone				OK				
12.	Plumbing	SINK 1769				✓		Faucet is hot water - change to cold trap too small	
13.	Radiators					✓	1	Re silver and 1 #1485 Valve	
14.	Radio						✓	Bulb UX 245 burned out	
15.	Fixing Equip				OK				
16.	Book Cases					✓		(3) Need to be sanded and varnished	
17.	Display Racks					✓		(1) Need to be sanded and varnished	
18.	Desks Teachers				OK				
19.	Pupils				OK				
20.	Tables				OK				
21.	Chairs	M 201			1	1		Left rear leg wobbly	
22.	Pictures				OK				
23.	Special Machines attach list				OK				
24.	Hardware					✓		Lock 1972 sticks	
25.									
26.									
27.									
	Miscellaneous List								

List further details on reverse

adopt the procedure of "planning his work and then working his plan." Every phase of maintenance and operation must be carefully studied and planned in advance. Deterioration is ever present. Provision to correct this must be made, as well as provision for repair. The superintendent has certain periods at his disposal for this work. There are the week-ends. There are the short vacations of Thanksgiving and Easter. There are the week vacations at Christmas and in the Spring. To this may be added the vacation in summer. In these periods, then, he must be sure that his school plant has been put in order. How shall he plan for this work? What method shall he use? When shall he purchase his materials? What technique is best?

The use of an objective maintenance check sheet will greatly facilitate the work of repair and replacement. If the executive were to have sheets similar to the form shown in the accompanying diagram, he would have a clear-cut method for determining the amount of work that must be done in the forthcoming maintenance period. Such a form could be filled out by the teacher and forwarded to the assistant principal who could use it as a basis for determining the physical efficiency of his plant. If it is not desired to have the teacher fill out the form, it would be possible for the chief building custodian to do this and forward it to the maintenance engineer or superintendent of buildings and grounds. The latter could appraise the entire efficiency of the plant and make recommendations as to the necessary repairs. It would be possible for the person responsible for such reports to have them prepared at intervals according to local needs, so that a constant internal survey of school plant repairs would be conveniently at hand.

The method of securing these data will vary with local conditions. The method of handling the data, once they are secured, will likewise vary with local conditions. In any case, an objective check sheet should be prepared, filled out periodically and analyzed to determine the need. This should be done well in advance of the repair period so that plans may be prepared, equipment and supplies secured, and all involved notified as to the schedule of repairs.

The diagram shows such an objective maintenance check sheet filled out for a high school room. Certain standard items are printed in Column 1. Column 2, for description, is to be filled in at the time of inspection. The condition columns, A, B, C, D, E are to cause a five point rat-

Cafiishch Hali, Allegheny College. Edward L. Tilson, architect. One of the many buildings on the Allegheny College campus which are completly equipped with du Pont Tontine Washable Window Shades.

4 REASONS

Why Washable Tontine Shades

were chosen by Allegheny College

HERE are four reasons why schools and universities the country over insist upon equipping buildings only with New and Improved du Pont Tontine window shades:

1. ***They are washable***—Soap and water instantly remove dirt and soil without harming the material in the least.

2. ***They are wear-defying***—Because they are made with the same basic substance as the famous du Pont Duco, they do not fray, crack or pinhole. Sunlight does not fade them. Rain does not spot or stain them.

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4. ***They are economical***—The New and Improved Tontine shades deal kindly with the replacement budget because they last so long and so well. The initial cost may be a bit higher, but in the long run you will find it is economy to use them.

You can prove all that we claim for Tontine shades by making a test in your buildings.

For complete window shade satisfaction, have them mounted on Tontine guaranteed rollers. Write to us for further information and samples.

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E. I. DU PONT DE NEMOURS & CO., INC., NEWBURGH, N. Y.

Canadian Distributors: Canadian Industries, Limited, Fabrikoid Division, New Toronto, Ontario, Can.

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Desk N. S. 4, Newburgh, N. Y.

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ing. A means that no repair is necessary, that the item is practically new; B means no repair is necessary, that the article is slightly worn; C shows the great average of school plant conditions, that the thing has been in use for a considerable period but in no need of repair; D means that the article is fairly worn and should receive attention within the next three months; E means immediate attention. In the case of shades as listed on the fourth line, two were A, one was B, one C, while two were D and one was E. In the "Parts Missing" column D is listed and the trouble stated. This is also done for E. A column for correction is also included so that the assistant principal or maintenance engineer may check the progress.

The reverse side of the card permits the listing of the details of the needed repairs. Special alterations are listed in a separate column and the technical information concerning the particular unit is also included. The entire card may be utilized for a room, a corridor, a gymnasium, an auditorium or any other mutually exclusive unit. The entire card is 9 by 12, printed on 110 pound index stock, and may be of any color desired. One color might be allotted to a certain building or to a division of the school system.

The executive desires to keep his schoolhouse plant in constant repair. He must utilize the periods available for such work. He must first determine what is necessary. With such check sheets as those described, the necessary plans can be made. If he understands his market he will know when to purchase the needed materials in order to have them on hand well before any actual work is started. For summer maintenance, it seems that April is not too early to do this buying. Last minute ordering is then eliminated. As a result the supply is greater, the quality better, the service quicker and the price more acceptable.

The wise school executive will not procrastinate.

What Kinds of Magazines Do Prospective Teachers Read?

An interesting glimpse into the literary preferences of prospective teachers, so far as periodicals are concerned, is shown in a study made by R. Clark, Montana State Normal College, and published in *School and Society.*

The preferences in the magazines they now read were listed by 149 prospective teachers. The *American* appeared most frequently. This was followed by the *Literary Digest.* Following—in order of number of "mentions"—were the *Saturday Evening Post, McCall's, Cosmopolitan, Ladies' Home Journal, Good Housekeeping, Collier's, Country Gentleman, College Humor* and twenty others.

As to the first choice of magazines they would like to take if they were engaged in teaching in the public schools, the *Literary Digest* and the *American* reverse first and second places. Then follow *Good Housekeeping,* the *National Geographic, McCall's, Saturday Evening Post, Collier's, Country Gentleman, Golden Book, American Mercury* and nineteen others.

In neither of these two lists of preferences appeared the names of *Bookman, Century, Harper's, Independent, North American, Outlook, Scribner's* or *Time.*

In the complete list of magazines now read, 105 different periodicals were mentioned. In all collectively there were in this list 683 "mentions." Those fifteen receiving the largest number of "mentions" exclusive of the "preference" list were, in order: *American, Literary Digest, Ladies' Home Journal, McCall's, Good Housekeeping, Cosmopolitan, Saturday Evening Post, True Story, Pictorial Review, Collier's, National Geographic, Woman's Home Companion, College Humor, Liberty, Red Book. Atlantic Monthly, Current History, McClure's, Nation* and *Scientific American* each were mentioned once.

Out of 122 magazines' names in a total of 1,367 "mentions" there were but five "mentions" of professional periodicals, two magazines of which do not exist.

Mr. Clark points out that the school in which this study was made is a typical normal school, perhaps a little better than the average.

Doing Away With Home Work in the New York Schools

No more will children in the elementary and junior high schools of New York City be burdened with home work. According to orders recently issued by Dr. William J. O'Shea, all home work is to be eliminated in the first three years of the elementary school and only light home work, and that "of the most essential and attractive forms," is to be assigned for the upper grades and junior high schools. The lessons that are given children of these upper classes for home study should not require more than one or one and a half hours, the orders emphasize. The new regulations affect more than 1,000,000 children.

Doctor O'Shea believes that the proper use of the study periods in schools is more important than home study lessons or home work.

Supervision for the Small School or Merely Inspection?*

Doing away with "inspectorial" methods in those schools in which the superintendent is necessarily the supervisor depends almost wholly upon the cooperative responsibility the teachers feel in supervision

By CARMON ROSS, Ph.D., Supervising Principal, Doylestown Borough Public Schools, Doylestown, Pa.

OF THE 18,157 high schools in this country 60 per cent have an enrollment of less than 100 pupils each. Thirty-four per cent have an enrollment of less than 50. In only 16 per cent of the schools is there an enrollment of more than 300. Among 226 supervising principals in Pennsylvania, out of a total of 493, we find that 45 per cent teach part time, 55 per cent do not teach at all, while 15 per cent teach 50 per cent or more of their time. Fifty per cent of these have no clerical asistance. Usually those who have no clerical assistance have heavy teaching duties.

It goes without saying that in the 60 per cent of the high schools of this country having an enrollment of less than 100 pupils each, together with the elementary schools supporting these schools, little supervision, as we generally understand the term, is possible. In these facts we find eloquent illustration for many of our problems of supervision, since in these schools supervision is necessarily a side issue in view of the tasks imposed upon the superintendent, supervising principal or others, who are responsible for the general administration of the schools. This paper is concerned primarily with the situation that exists in these undermanned and underorganized schools. In fact, it may not be overstating a truism to say that even the more opulent and more fortunate districts, through their elaborate forms of organized supervision, become so enmeshed in details and in reports from one officer to another that supervision including inspection is delegated to the swivel chair.

What Is Supervision?

It is all very well to discuss various forms of organized supervision. After all, less than 50 per cent of the schools of this country can afford such supervision. What about those others that are compelled to rest content with a different type of supervision? How can we carry on and improve instruction in these schools without the use of "police" or "inspectorial" methods? Unfortunately, in the minds of many administrators and supervisors, supervision cannot be disassociated from inspection. They think they have supervised when they have visited. They visit, they look wise, they utter platitudes, they pass compliments, they may even censure. All this, however, is not supervision. Classroom visitations are necessary, but they are only a means unto an end. For these schools the administrator —he is also the supervisor—has a limited amount of time at his disposal for inspection. He must work and supervise in a different way.

The Supervisor as a Leader

It is trite to say that the aim of all supervision is the improvement of instruction. This should be the ultimate aim of all school organization from the janitors up. How can the administrator with his various duties as executive, teacher, clerk, community leader and budget officer exercise supervisory functions with a minimum amount of time for inspectional purposes? Is it possible to have the substance of supervision without the form? Yet the administrator who professes not to visit because there is a lack of time needs no alibi. Rather, it is the first professional duty of that superintendent so to train himself in the fine art of observing the teaching methods in his schools that he may develop a technique that will permit him to observe keenly, quickly, analytically and with an open mind. This is not the place to analyze the personal qualities of the administrator as a supervisor, but if he lacks these qualities, even the modicum of time he may have for inspection will be wasted.

Of course, classroom visitation is an important phase of supervision. But it is by no means the only phase. Supervision means directing and guiding the growth of a teacher in service until she gradually realizes her own power and sense of initiative. This directive influence must come through the dynamic power of leadership, which must necessarily be furnished by the administra-

*Read at Schoolmen's Week, University of Pennsylvania.

tor. It is this quality of leadership that distinguishes the good superintendent from the poor one. In the modern science of education, we are gradually finding out what these traits of leadership are. It is sufficient to say here that teachers must have respect for their leader's professional skill and training, for his serious attitude towards his job, for his fairness and his consideration of their work, for his understanding of their problems and for his accuracy in analyzing their virtues and their faults. Above all, they must have faith, confidence and belief in the professional standards he sets before them. In his personal fitness alone can the superintendent hope to develop within his teachers an honest desire to grow professionally. A functioning and intelligent leadership, therefore, is the first requisite in a program that minimizes the importance of inspection.

The rank and file of the teachers should be made to realize that they have a cooperative responsibility in supervision. They must be encouraged to seek professional assistance when they feel they need it. It is not exaggerating the facts to say that nine-tenths of the faults of teachers can be concealed if the teachers care to conceal them. There is infinitely more hope for the teacher who voluntarily seeks help and advice than for the one who prays that the superintendent may come in only when she is having a "fine lesson." But the superintendent must make his teachers feel that these willing excursions to him for guidance and suggestions are really welcomed as a part of his professional duty.

It is the business of every superintendent to supplement the work of the teacher training institutions. These institutions cannot complete the job of training teachers for service, much as we desire them to do so. This supplemental training comes in a variety of ways but primarily through conferences and teachers' meetings, through adequate professional literature facilities, through carefully planned classroom visits, through directed visits to other schools, through assigned professional readings bearing on a specifically observed problem and through personal conferences following an inspection visit.

Preschool Conference Is Important

Of importance in planning a successful year's program is the preschool conference, this conference to include all the teachers in the system, particularly those who are new. Such a conference is important enough to justify paying the teachers to attend the meeting. It should be carefully organized and should be more than a mere gathering of teachers. At this conference there should be discussed the aims of the school, new policies, new regulations, new courses, new problems, changes, new standards, testing programs, the relations of teachers to the community and other problems that have an intimate bearing on the instructional work of the teachers. The one thing that such a conference ought to do is to inspire the teachers with confidence in the superintendent. The conference, too, should give teachers, especially new and inexperienced teachers, definite goals.

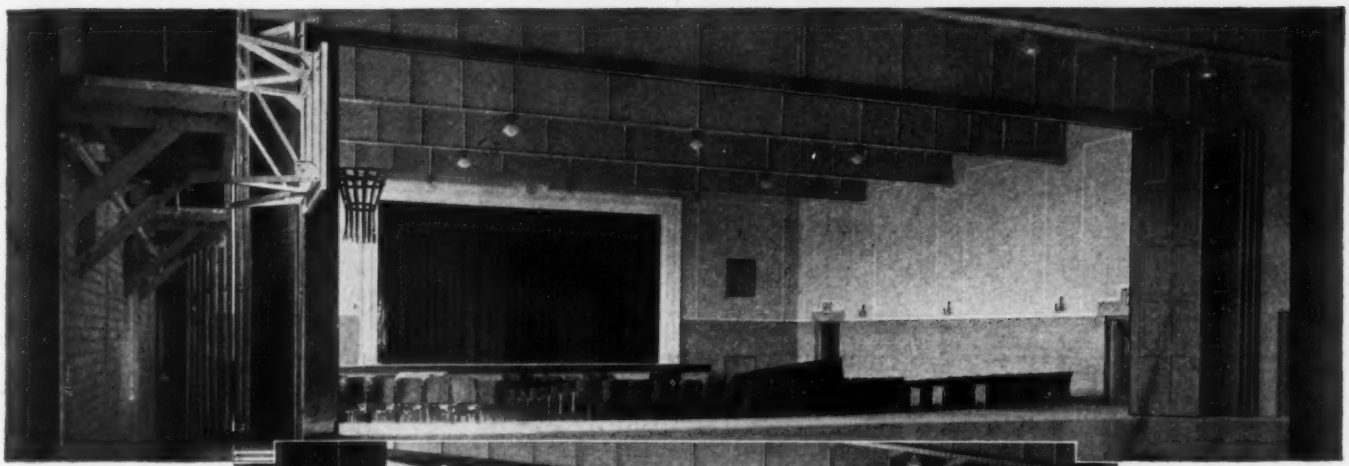
Setting the Right Example to the Teacher

In a scheme of supervision that depends to a certain extent on the honest desires and ambitions of the teachers to grow in their jobs, the best professional literature must be made available to them. This means that a school should gradually build up a library of professional books, well catalogued and readily accessible. Teachers must be put in touch with the best contemporary professional magazines and their attention called to outstanding materials bearing on their work. The professional interests of teachers can frequently be gauged by the kind of company they keep with professional literature.

Modern tests, to a certain extent, have simplified some problems of supervision. Through their use the work of the schools can be checked and evaluated. Unless, however, standard tests are used to improve instruction, they are a waste of money. Any program of supervision that overlooks the practical values of tests from the point of view of better teaching results has not caught the spirit of what is best in testing. Teachers should give these tests themselves, especially the diagnostic types, in order that they may see first-hand results. Not only should teachers be encouraged in the use of these tests, but they should be encouraged to try new experiments. This is all in the line of encouragement and direction to the teachers to develop initiative and growth in self-analysis. Unless teachers can be taught to interpret test results in terms of failures or excellences in teaching procedures, the tests are not serving their best purposes.

Teachers should have set before them certain criteria as to what constitutes good teaching. They should become familiar with these criteria before they leave the teacher training institution, and they probably do. Nevertheless, when they enter into actual teaching situations, measures of teaching values are modified. They need to have before them constantly those factors of good teaching that create interest, ready response, self-activity on the part of the learner, cooperative endeavors within groups and steady growth.

NO OPENING TOO HIGH . . . . NONE TOO WIDE



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With FoldeR-Way, whole walls disappear and reappear, with practically no effort and no noise. Idle floor space is utilized; not a foot of it need be wasted with R-W equipment.

Here is a typical example, the Junior & Senior High School, Quakertown, Pennsylvania. The doors are 22 feet high, the opening 60 feet wide. Yet one man experiences no difficulty in moving the entire set of 20 doors. There has never been any trouble or costly upkeep connected with this or any other R-W engineered installation.

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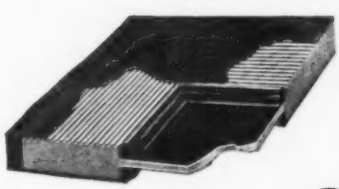
The beauty and smooth operation of R-W Compound Key Veneered doors are lasting. Sagging, warping, swelling, shrinking are practically eliminated by tongue and groove method of applying veneer. These famous doors are now made exclusively and sold only by R-W for FoldeR-Way partitions.



Write for Catalog No. A-53, illustrating R-W Disappearing Door Wardrobes for the classroom.

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We are too apt to think of supervision merely as a method of directive control over teachers and over their work. We forget that the most important workers in the school are the children. We are apt to forget that children do or should come from homes. Supervision concerns the administrator's approach to this much unused educational agency. This at once brings to our minds such matters as school reports, school marks, school records, letters to parents and school visits and such persons as the social and health worker and the attendance officer. The administrator should be concerned with directed study in the school or in the home, with assigned home work and with the reading of the children. Even extra-curricular activities come under the category of supervision since they may either help or mar instruction, and they frequently do both. Supervision can neglect nothing that may affect the mental and physical welfare of children and ultimately affect the quality of teaching. Yet a type of supervision that merely observes teaching and passes judgment upon actual classroom procedures may defeat the very purpose for which the school exists—that of molding character and making good citizens.

The Beginning of Supervision

This knowledge of the children's social opportunities and the influences at work on them outside the schoolroom is a teacher responsibility that is often sadly neglected. What a tremendous step will be taken in improving the quality of instruction when teachers shall know children as human beings outside the school walls! It is realized of course that this view of supervision is not the academic one. Yet in those schools in which teachers regularly visit the homes, there are comparatively no misunderstandings with parents, and the quality of the teaching is materially improved. This is, after all, the chief purpose of supervision, and teacher visitations to the home contribute a type of understanding that ensures better teaching conditions and better results. Besides, there is, without doubt, a high degree of correlation between community identification and professional interests. The problem of supervision becomes less of a problem if supervisors and administrators can so arouse the feeling of genuine teaching interest in their teachers that, in the words of Cameron Beck, they will regard their "work as more than a job and their wages as more than money."

Supervision begins with the selection of the teachers. The greatest compliment that can be paid to any school system is not to admire its physical plant, its organization, its curriculum, its athletic teams or its salary schedule, but to praise its teachers. An administrator who is also a supervisor has an obligation and a responsibility in selecting the type of teachers who will respond to this "in service" growth that minimizes a great amount of inspection. He must be more than cautious when he chooses his teachers. If industry and business select their employees through personnel officers, the school can afford to choose its teachers only after careful interviews and searching inquiry concerning their training, personal traits, experience, character and habits. The superintendent, rather than the agency, college or teacher training institution, should select his teachers. This is, in truth, the beginning of supervision.

There has been no attempt to discuss in this short paper the general functions of supervisors. Rather, it has been concerned with what we may be able to do with limited facilities. It has dealt with the administrator who is also a supervisor and, in many cases, a teacher. Much of this work is undoubtedly the extra-curricular activity of the superintendent. Unless the superintendent is able to exert leadership in the right direction and to allow reasonable latitude, it is impossible for him either to direct and guide his teachers along lines of healthy professional growth or to create within them that greatest of all incentives —the desire to make the most of the best that is in them.

Giving the Rural-School Child a Chance for Health

"School officials are the guardians of the rights of children," a booklet called "The Rural One-Teacher Schools of Illinois" sets forth. The booklet is issued under the supervision of Francis G. Blair, superintendent of public instruction for Illinois.

The booklet continues: "If school officials fail to do all within their power to safeguard those rights, they violate their oath of office and the trust that is placed in them and are guilty of a great wrong against helpless children.

"The conditions that have great influence in promoting health and a proper growth of the child are:

"Proper temperature of the room.
"Proper supply of clean air to breathe.
"Proper light to safeguard eyesight.
"Proper seats for the size of the children.
"Wholesome water supply.
"Decent and comfortable toilets.
"Safety against fire hazards."

3 TIMES IN 3 YEARS

University of Texas . . selects Armstrong's Linoleum Floors

Above—September, 1926–3,000 sq. yds. of brown Armstrong's Linoleum installed in Garrison Hall, University of Texas.

Left — August, 1927 — Armstrong Floors of brown Jaspé and plain brown laid in Alice Littlefield Dormitory for Freshman girls, University of Texas.

FIRST in 1925, then in 1926, then in 1927—three times in three successive years the officials of the University of Texas selected and installed Armstrong's Linoleum Floors in new buildings. Now Texas has nearly 7,000 square yards of this modern linoleum at its state university . . . in dormitory, recitation hall, and laboratory.

Durability was one reason for the selection of Armstrong's Linoleum. Quiet was another decisive factor. And sanitation. And beauty. And, highly important also, the low maintenance cost and ease of caring for the Armstrong Floors.

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Significant Trends in School Legislation*

State enactments during 1929 revealed an almost nationwide interest in finance, pupils and teachers, although school districts, organization, classes, buildings and equipment and instruction were not overlooked

SIGNIFICANT trends in state school legislation during 1929 may be summarized as follows: the application of the equalization principle in the distribution of state school funds; statewide teacher retirement systems; the centralization of authority for teacher certification; provisions to facilitate the consolidation of school districts; permissive legislation for the establishment of junior colleges, and new procedures to safeguard the health of pupils.

Subjects treated most frequently in the school legislation of the states concerned finance, pupils and teachers. Less important subjects were school districts, organization, classes, building and equipment and instruction.

Forty state legislatures considered questions bearing on school finance. Taxation, special legislative appropriations and the apportionment of school funds were the major financial issues. Laws governing school bond issues were considered by nine states. The laws dealing with taxation for school purposes involved a shifting toward newer types of taxation and the removal or raising of statutory and constitutional tax limitations. Sales taxes for school purposes were levied in Arkansas, Florida, Texas and Georgia. An attempt to secure a tobacco sales tax in Montana was defeated. Arkansas passed a net income tax law which will place $750,000 annually to the credit of the equalization fund. Some interest in administrative improvement of the tax laws is also evident. Measures for better enforcement of the state poll tax for school purposes were enacted in Arkansas. A bill submitting the classified property tax issue to a referendum was passed in Washington, but a similar measure in Utah was defeated by a narrow margin. In North Carolina the state board of equalization was given considerable control over local school budgets. Laws that will make it easier for local communities to increase their tax rates for schools were passed in the states of California, Colorado, Delaware and Michigan.

In the new laws governing distribution of school funds there is evident a recognition of the equalization principle. Not only have the amounts available for equalization purposes been increased, but in several states the method of apportionment has been revised by the legislatures to permit greater application of the principle of equalization. For instance, Indiana set aside 45 per cent of the seven cent education tax to aid poor school corporations; in Oregon, an equalization fund of $2,000,000 was ordered distributed according to the ratio of children to taxable wealth in the district as compared with the same ratio for the state; in Ohio, the method of distribution of the county school levy was left largely to the discretion of the county boards of education.

Changes of importance have been made in the laws governing school bonds in nine states. Laws facilitating the issuance of bonds were passed in Montana and Nebraska. New Mexico enacted a law providing for a uniform system of bonding for school districts. Changes in the laws governing the retirement or refunding of bonds were passed in Kansas, Idaho, Michigan, Utah, and Wyoming. In Oregon the electorate eligible to vote on school bonds or school taxes was limited to property owners.

Laws Affecting the Status of Teachers

Other legislation of interest on the general question of school finance includes a California law empowering the state board of education to prescribe a uniform system of cost accounting for all junior colleges, a Wisconsin enactment permitting local boards of vocational education to borrow from the state permanent fund and a Colorado law requiring at least 10 per cent of all school land sales to be paid in cash.

Legislation of major importance affecting the status of teachers was passed in forty states. The dominant issues were teacher retirement and certification. Some legislation was also passed on teacher tenure, contracts, salaries and leaves of absence.

Bills to provide statewide teacher retirement

*This review was abstracted from Studies in State Educational Administration, Study No. 1, December, 1929, made by the research division of the National Education Association.

systems were introduced without success in Colorado, Delaware, Minnesota, New Hampshire, New Mexico, Oklahoma, Utah and West Virginia. Successful new retirement legislation includes: the establishment of a territorywide pension system in Alaska; the creation of an emeritus classification for presidents of teachers' colleges in Illinois and Arizona; the extension of the retirement provisions to librarians and certain other employees in California; the revision of the Iowa permissive retirement law to include cities as small as 25,100; increased maximum pensions and annuities in Massachusetts; the reenactment of the statewide retirement law in Michigan and the increase of the Vermont minimum retirement allowance to $200 per year.

Retirement Legislation Is Major Issue

Changes affecting only teachers in certain cities were made in the retirement laws of Oregon, Colorado, Illinois and Nebraska. Attempts to make extensive revisions in retirement laws failed in California and Montana. Commissions to study retirement were authorized in North Dakota, Michigan and Delaware. They were, however, rejected by the Florida legislature. The general situation in regard to retirement legislation may be summarized by saying that the relatively recent development of retirement legislation is necessitating many administrative changes in retirement laws and that, in one form or another, teacher retirement is a major legislative issue in practically every state.

Next to retirement the most common legislative problem affecting teacher status is that of training and certification. The four chief trends in this field appear to be the extension and improvement of teacher training facilities, the raising of the minimum standards for certification, the abolition of the examination as a basis for initial certification and the centralization of certificating authority. Teacher training facilities were extended in many states by special and increased appropriations. In New Hampshire, however, a bill to provide new normal school buildings was defeated. In Connecticut and Vermont state scholarships for students in teacher training institutions were increased. Examinations for certification were discontinued in Alaska, Minnesota and Utah. The authority of the state in certification was made complete and exclusive in four states—Oklahoma, Michigan, Minnesota and Utah. In Ohio, however, a proposal to centralize authority and raise certification requirements was defeated. Minimum standards for teacher certification were raised by new laws in Alaska, Illinois, Iowa and Oregon. Civic requirements for teachers were strengthened in Texas and in Indiana.

Laws relating to the contractual status of teachers were under consideration in eight states. Teachers' and janitors' contracts in Maine were declared invalid unless the employee files a bill of health. In Kansas and Nebraska, changes were made in the laws governing the employment of a teacher related by blood or by marriage to one of the school trustees. In both California and Indiana, bills to repeal the statewide teacher tenure laws were defeated. In Nevada, school boards must notify teachers concerning reemployment on or before May 15. Unless teachers are so notified they are considered reappointed for the next year at the same salary. Under a new Pennsylvania statute, teachers' contracts now continue in full force year after year unless terminated before the end of the school year by either the teachers or the school board.

More favorable legislation with regard to leaves of absence for teachers was successful in four states and vetoed in one. Laws involving additional state regulation of the amount of teachers' salaries were passed in Colorado, North Carolina, Pennsylvania and West Virginia. In California the salaries of kindergarten teachers were given prior claim on kindergarten funds.

The laws governing school administration and organization in district, city, county and state were modified in many states. Provisions to facilitate consolidation of school districts and to strengthen county school administration were passed in at least nine states. An optional county unit plan was adopted in Arkansas, while county unit bills creating an appointive county superintendency were defeated in Washington, Oklahoma, Texas and California. Extension of the powers and duties of school boards to provide new types of educational services occurred in many states.

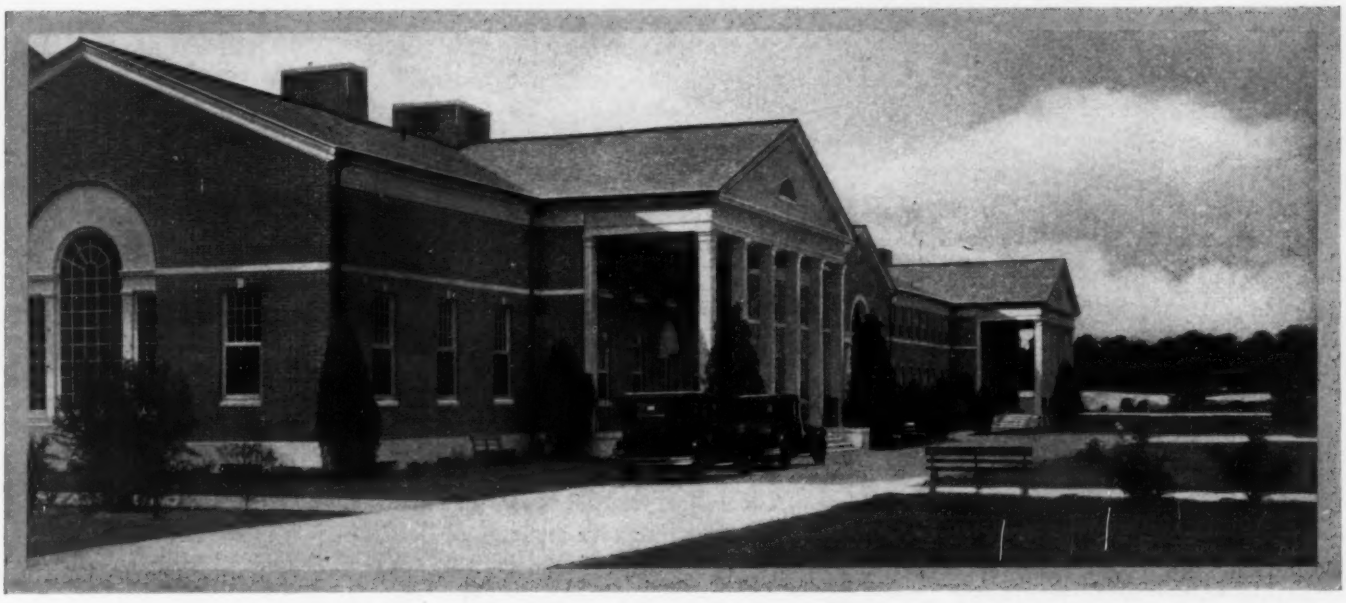
Changes in School Board Organization

Significant changes in city school board organization are reported from Wisconsin and Texas. In the former state, a city comprising an entire school district may now have the members of its board of education appointed by the mayor, elected by the council or elected at large. In Texas, permissive legislation was passed legalizing the separation of city schools from municipal control.

In county administration, legislation increasing the authority, salary and qualifications of the county superintendent of schools was passed in California, Indiana, Montana, Nebraska and Wisconsin. In South Carolina, however, the Hancock Law exempts county superintendents from the certification requirements and establishes a maximum salary of $3,500 for these officers.

BUILT TO LAST

Wesleyan College is Rust-Proofed with Copper, Brass and Bronze



Partial view of new group of buildings, Wesleyan College, Macon, Georgia. Architects—Walker & Weeks, Cleveland, Ohio.

FOUNDED 94 years ago, Wesleyan College, Macon, Georgia, recently moved to a new site, five miles from the original college. Here, on a campus of 170 acres, there is being erected a beautiful new group of buildings designed to make this a model college for women.

The first units of the new college, recently completed, show in both their handsome Georgian exteriors and in their dignified interiors many evidences of intelligent foresight.

Liberal use has been made of Copper, Brass and Bronze. All gutters, flashings, and downspouts are of Copper. All hot water lines are of Brass pipe. Hardware and lighting fixtures are beautifully designed of solid Bronze.

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AMERICA'S LEADING ARCHITECTS RECOMMEND COPPER, BRASS AND BRONZE

Legislation dealing with the organization of state departments of education was not prominent in 1929. Additional positions in these departments were created by legislation in Florida, New York, North Dakota, Oklahoma and Wyoming. The term of office of the commissioner of education in Alaska was extended to four years and the salary of the same officer in New Jersey was fixed at $15,000 a year. Referendums on the question of reorganizing the state department of education were submitted by the legislatures of California, Colorado, New Mexico and Oregon. In Texas, a state board of education consisting of nine members appointed by the governor of six-year terms was authorized.

Providing for Handicapped Children

Laws involving schools and classes of special types and levels were considered in twenty-eight states. Among these, provisions for better education to handicapped children are prominent. Laws regarding the education of crippled children were passed in Connecticut, New Jersey, West Virginia, Wisconsin, Hawaii, Kansas and Maryland; of delinquents, in California; of destitute children, in Nevada; of feeble-minded children, in Utah and West Virginia; of children suffering from blindness or defective vision, in Illinois, Wyoming, New Jersey and Iowa.

In the field of higher education, probably the most sweeping changes were made in Oregon. The boards of regents of the state normal schools, the state university and the state agricultural college were abolished. All of these institutions were brought under a single state department of higher education consisting of a board of nine directors appointed by the governor with the consent of the senate. Statewide surveys of higher education have been authorized by law in New Jersey and Oklahoma.

Junior college legislation was considered in at least five states. Permissive legislation for the establishment of junior colleges in certain districts was passed in Michigan and Texas and defeated in Ohio and Indiana. In California, additional financial and enrollment prerequisites for the establishment of district junior colleges were set up. Another new California law empowers junior college districts to maintain dormitories.

Considerable interest in adult and vocational education was evidenced in 1929 legislation. In twelve states laws were passed that were intended to strengthen this aspect of the educational program, generally by providing additional financial resources or by arranging for better articulation between the regular school work and adult and vocational education.

Important legislation concerned primarily with child welfare and the protection of educational rights of pupils was considered in twenty-seven states. Several new laws relating to attendance and school terms were enacted. The following are typical enactments: The limits for compulsory attendance were extended in Alaska to ages seven to sixteen years and in Oregon to ages eight to sixteen years. The minimum school term was increased in Illinois to eight months, in Maine to thirty-two weeks and in New York to 190 days including legal holidays. Compulsory attendance laws were also strengthened in California and Nebraska. At the same time attempts to extend the school term were unsuccessful in North Carolina, South Carolina, Minnesota and Texas.

New legislation affecting the procedures for safeguarding the health of pupils is illustrated by the enactments of several states. In Alaska, physical examinations of school children are now required in all cities and authorized in all schools. The rules regarding vaccination were made more stringent by revisions in the public health laws of New York. Free physical examinations were provided for pupils in Pennsylvania. In Ohio, boards of education were specifically authorized to employ school dentists. Wisconsin requires all schools to be supplied with a first aid kit.

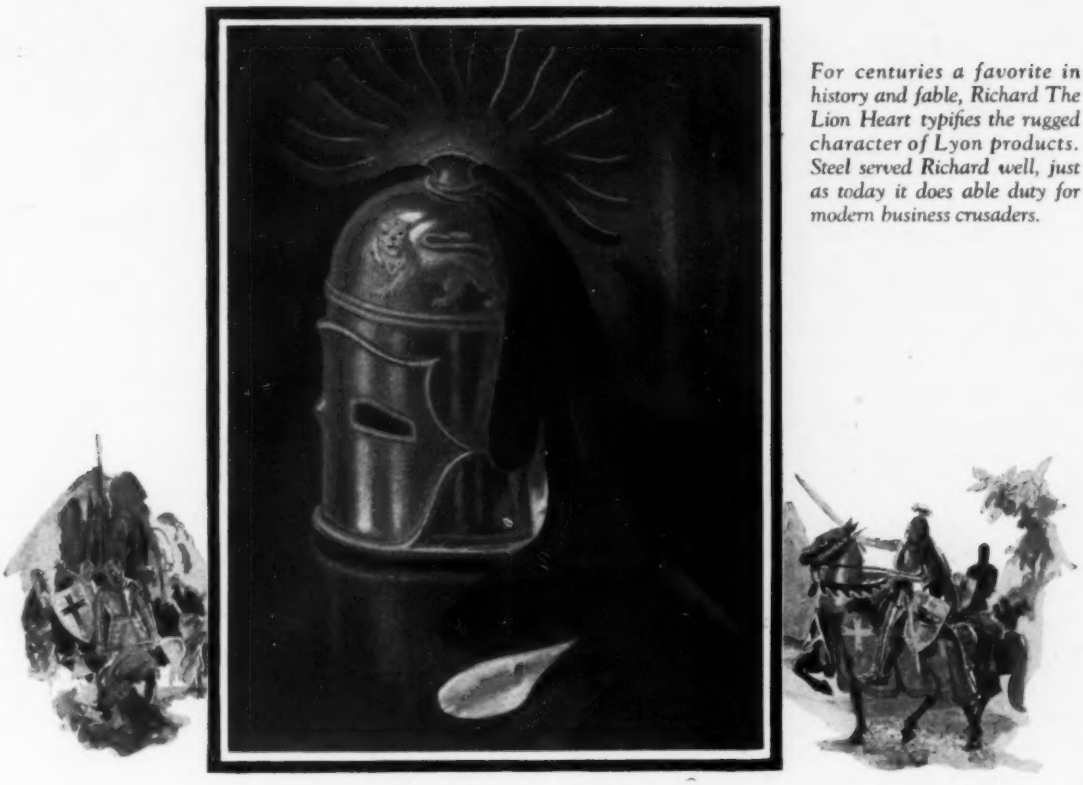
Obviously, the purpose of the new legislation with respect to tuition of nonresident pupils and the transportation of pupils in rural areas is to make educational advantages available to as many pupils as possible.

Studies Required by Law

Legislative prescriptions concerning the course of study continued to increase in 1929. Among the new required subjects are public safety and accident prevention (California); effects of alcohol, stimulants and narcotics on the human system (Delaware and New Mexico); federal and state constitutions (North Dakota and Texas); character education (Oregon); physical education (Texas). Tendencies away from the legislative control of curricula may be noted in California where the junior high schools have been exempted from certain time allotment provisions and in Hawaii where a bill to require the teaching of the Hawaiian language in high schools was defeated.

Permissive or compulsory school observances of certain holidays were enacted into law in five states: Flag Day, Delaware and Michigan; Columbus Day, Wisconsin; Lief Ericson Day, Wisconsin; Armistice Day, Wisconsin; Memorial Day, Maryland; Arbor Day, Indiana.

Most of the new legislation concerning school



For centuries a favorite in history and fable, Richard The Lion Heart typifies the rugged character of Lyon products. Steel served Richard well, just as today it does able duty for modern business crusaders.

Helmet of Richard. Painted by Ludwig Gassner

STEEL—TO BEAR THE HARD ABUSE THAT SCHOOL EQUIPMENT STANDS DAILY

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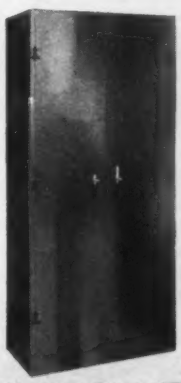

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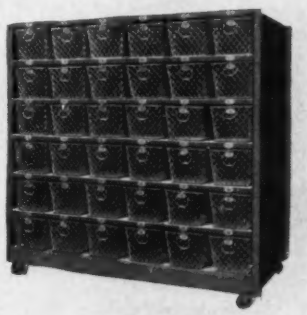


BASKET RACK

buildings and equipment is centered around textbooks and libraries. Bills to provide additional free textbooks failed to pass in Arizona (high school texts), California (supplementary elementary texts), and Hawaii (all texts). Free textbooks were authorized for indigent pupils in Hawaii and for children in the first and second grades in New Mexico. A bill providing for state publication of textbooks was defeated in Georgia. Laws favorable to the development of public and school libraries were passed in Arizona, Nebraska, Pennsylvania and West Virginia.

Permissive legislation authorizing the establishment of school cafeterias in certain districts was passed in Colorado and New Jersey.

Commissions to study the state school situations, either in general or in certain special aspects, were created by law in California (general), Delaware (teacher retirement), Hawaii (general), Illinois (textbooks), Iowa (handicapped children), Kansas (handicapped children and adults), Massachusetts (attendance laws), Michigan (general), Missouri (state institutions and public schools), New Jersey (general), Pennsylvania (school finance), Rhode Island (child welfare) and Washington (taxation).

Codification of the school laws was accomplished in Alaska and California. Similar attempts were postponed in Kansas and Ohio.

Reducing the Transportation of Pupils to a Business Basis

Transportation of school children in the United States is being reduced to a systematic business basis, according to the chief of the division of rural education, Mrs. Katherine M. Cook, in a biennial survey of rural education recently published by the Office of Education.

Approximately one-third of the states now grant aid specifically for pupil transportation. The annual expenditure for transportation has reached $40,000,000, the survey discloses.

In 1925-26 Alabama transported 30,000 pupils to school at a cost of $560,000 compared with 50,000 in 1927-28 at a cost of $750,000.

According to the survey, transportation continues to be a necessary and growing factor in school centralization. Improvement in roads and in efficiency and comfort of motor vehicles has brought large benefits to rural children. There has been considerable advance in recent years in the cost accounting systems used by districts furnishing transportation, especially those furnishing it on a large scale. Pupil transportation is being reduced to a systematic business basis.

A Father Tells His Views on Home Work

That home work is an unfair encroachment on a child's free time, that it is detrimental to the health of a growing child and that "it is a pious fraud" are the emphatic statements of Lee Wolfsohn in the *Wisconsin Journal of Education* who tells in no uncertain terms why he is against home work.

Mr. Wolfsohn has a daughter in high school. She takes four required subjects and one cultural —music appreciation—subject. The class day is divided into eight periods. One is the lunch period. Four periods are given to the required subjects and one to the cultural subject. Every other day she spends one period in the gymnasium, leaving an average of one and a half study periods a day which are needed for completing loose ends of the work done at home. This means that all preparation for her school work must be done at home.

Home Work a Menace to Health

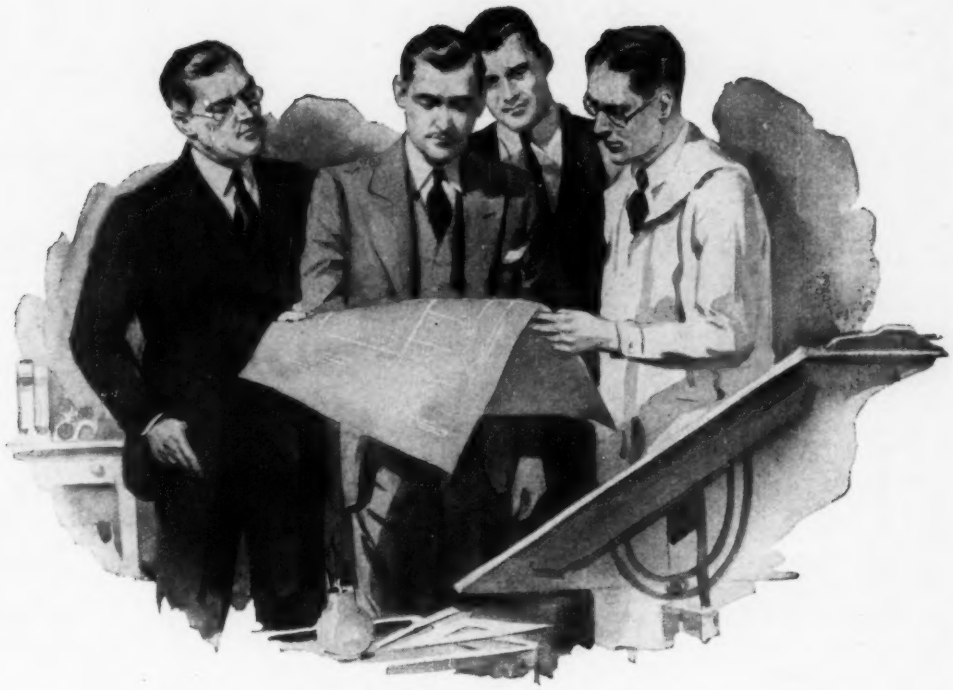
At least three hours, then, must be spent in home work which, according to Mr. Wolfsohn, "are on a par with overtime against which working men have fought for years and have penalized with the demand for a higher rate of pay."

"But that is not the worst of it," he says. "The thing is a positive menace to the health of a growing child." The daughter has no time to participate in outdoor sports of any kind. If she goes to a concert or to some cultural recreation, she pays dearly the next day for the lack of study. At night she must fight to keep awake to prepare her lessons for the next day.

In support of his contention that home work is a "pious and unholy fraud," Mr. Wolfsohn tells of the papers that his daughter has prepared, many times requiring the assistance of both her mother and her father to collect the material indicated, only to have the paper disposed of without ever having been read by the teacher. "I have seen," he says, "mathematics papers written that were never heard from again; history subjects labored out on paper that never came back and other voluminous assigned work, the importance of which the teacher never failed to emphasize ominously, that never turned up again.

"Do teachers say that the week-ends might be a good time for a child to catch up on her sleep? Or her recreation? They figure, instead, that she now has more time in which to do home work. So they pile it on with an extra shovel.

"The entire thing is a fraudulent imposition on the child, the parents and the public."



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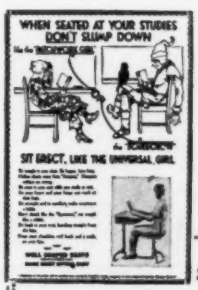

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News of the Month

North Central Association Meeting Draws Crowded Attendance

From Tuesday, March 18, through Friday, March 21, the North Central Association of Colleges and Secondary Schools held its thirty-fifth annual meeting at the Stevens Hotel, Chicago. There was an attendance of between 700 and 800 educators interested in secondary schools and colleges.

Officers for the coming year were elected as follows: president, Merle Prunty, superintendent of schools, Tulsa, Okla.; first vice-president, C. R. Maxwell, University of Wyoming; second vice-president, G. W. Willett, principal, Lyons Township High School, La Grange, Ill.; members of the executive committee, M. E. Haggerty, University of Minnesota, and W. E. Tower, district superintendent of high schools, Chicago.

President Franklin L. McVey, University of Kentucky, who was the speaker at the dinner meeting of the association, discussed administrative problems of universities. He decried the subordination of educational policy to financial and administrative interests. "It is a state of things that weighs heavily on the hopes and ambitions of the faculties," he said. "In our American system the place and authority of the teaching group are much lower than that occupied by the staffs of European universities. The faculty should be something more than a traditional body engaged in routine educational policy if it is to have self-respect and a greater interest in the affairs of the institution."

The first two days of the convention were devoted to the meetings of the various commissions and the last two to meetings of the general association, under the chairmanship of W. P. Morgan, Western Illinois State Teachers' College, Macomb, Ill., the president of the association.

A report of especial interest was presented at the Thursday afternoon meeting by Dean C. R. Maxwell, University of Wyoming, chairman of the association's committee on special studies of the commission on secondary schools. Once in four years the association investigates not merely the college entrance records of its member schools but also the college freshmen of those schools in their first college semester's work. This detailed study for 1928-29 for over a thousand public and private schools was carried on last year by Dean Maxwell's committee and at the meeting he reviewed and commented on the statistics incorporated in the report which was published in full in the March issue of the *North Central Association Quarterly.*

Another report of interest was given Thursday morning by Principal E. E. Morley, Cleveland Heights, Ohio, chairman of the committee on athletics. This report took a decided stand in favor of the curtailment of contests, especially tournaments. It advised emphasis on a physical education program and participation in athletics by all students but on a basis that keeps further away from professionalism. It condemned the appointment of coaches who are not at the same time competent educators.

The association took an advanced stand on requirements for libraries, demanding trained librarians for full-time service in the larger schools and college graduates with library training who give part time to teaching and part time to library service in the smaller high schools.

A feature of the meeting was an address given by Dr. Ray Lyman Wilbur, secretary of the interior, who took as his subject the need for flexibility in the standards of accrediting agencies.

Prof. John Dewey Retires From Teaching Duties

Prof. John Dewey, dean of American philosophers and educators, will retire from the faculty of Columbia University at the closing of the academic year, June 20. Professor Dewey, who is in his seventy-first year, is giving up active teaching duty to devote himself to his writings.

When Doctor Dewey became professor of philosophy at Columbia University in 1905 he was already famous. He was internationally known for his development of the pragmatic philosophy of William James and for his innovations at the Experimental School in the University of Chicago. Since then he has achieved a reputation also for his contributions to social and political progress.

When he celebrated his seventieth birthday on October 20, 1929, a national committee of eminent scholars, most of whom had been his pupils at one time, directed a three-day institute of discussion on his contributions to philosophy, education and social progress. Tributes were paid to him before daily audiences of more than 2,000 by a varied group of thinkers, including President James Rowland Angell of Yale, Jane Addams, James Harvey Robinson, Ralph Barton Perry and Dr. Frank P. Graves.

Large Attendance Expected at School Officials' Meeting

Business managers, purchasing agents, superintendents of buildings and grounds of schools, school board members, school superintendents, school architects and members of the American Institute of Architects are expected to be present in large numbers at the meeting of the National Association of Public School Business Officials to be held in New Orleans, May 19 to 23.

The Roosevelt Hotel will be headquarters for the delegates, who will find all exhibits conveniently assembled on the main floor of the hotel just off the lobby.

New Orleans contains much that is of historic interest to visitors, and great things are being planned for the entertainment of those attending the meeting.

News of the Month

Dr. Randall G. Condon Wins Education Award

The American Education Award for 1930 was presented to Dr. Randall G. Condon, for many years superintendent of schools, Cincinnati, at a banquet held in the Chelsea Hotel, Atlantic City, during the National Education Association Convention, February 22 to 27. Doctor Condon is the third to receive this award, James W. Crabtree, secretary, National Education Association and Mrs. Susan M. Dorsey, superintendent emeritus of schools, Los Angeles, being the other two.

The award is given each year to the educator, who in the judgment of the board of directors of the Exhibitors Association, has contributed in a meritorious way to the advance of public school education in the United States.

The presentation was made during the exhibitors' banquet at which more than a thousand school officials were entertained. Among the guests of honor were the Honorable and Mrs. William J. Cooper, former president Mary C. C. Bradford, Mrs. Susan Dorsey, J. W. Crabtree, and Dr. and Mrs. Randall G. Condon.

Jewish Educators Will Hold Conference in New York

The National Council for Jewish Education will hold its annual conference in New York City on June 22, 23 and 24 and at the Central Jewish Institute Camps, Port Jervis, N. Y. The membership of the council, which was established in 1926, consists of executive heads of bureaus, departments and boards of Jewish education, principals of important schools, teachers in teachers' colleges and special supervisors and textbook writers.

Peabody College Sponsors School Administrators' Conference

The George Peabody College for Teachers, Nashville, Tenn., has invited school board members and school administrative officers to attend a conference at the college, April 28 to May 2, at which intensive courses in the modern and efficient methods of administering schools will be given. The conference is intended primarily for those who are unable to take the time necessary to attend regular sessions at the higher institutions of learning.

Regularly scheduled classes will run throughout the week, Monday to Friday, inclusive. In addition, one period daily will be devoted to round table discussions and one to group discussions, and a general assembly meeting will be held each day at which a prominent educator will speak. The entire program has been planned with the definite idea of helping school officials solve their practical problems.

Bruce R. Payne, president, George Peabody College for Teachers; Shelton Phelps, Walter D. Cocking, and Norman Frost, all members of the faculty at Peabody College; C. L. Barr, vice-president, National Public School Business Officials; W. S. Deffenbaugh, specialist in city school administration, United States Office of Education; Arthur B. Moehlman, professor of school administration, University of Michigan, Ann Arbor; J. H. Newlon, director, Lincoln School, Teachers College, Columbia University, and Sherwood D. Shankland, secretary, Department of Superintendence, National Education Association, are among the prominent educators who will compose the faculty in charge of the conference.

The only expense to delegates will be transportation to and from the conference, and board.

Associated Exhibitors Elect New Officers

At the annual meeting of the Associated Exhibitors held during the week of the National Education Association Convention at Atlantic City, February 22 to 27, the exhibitors elected George D. Full, president of the Dudley Lock Company, as president; Marshall R. Diggs, Walraven Book Cover Company, as vice-president; Stanley R. Clague, The NATION'S SCHOOLS, as secretary and treasurer. The directors elected were Ray S. Erlandson, A. H. Thompson and E. N. Carroll. Mr. Erlandson, the retiring president, announced a 79 per cent increase in membership over the previous year.

Dr. Martin Grove Brumbaugh, Noted Educator, Dies

Dr. Martin Grove Brumbaugh, aged 68 years, educator, lecturer, statesman and religious leader, died of heart failure on March 14 while he was vacationing at Pinehurst, N. C.

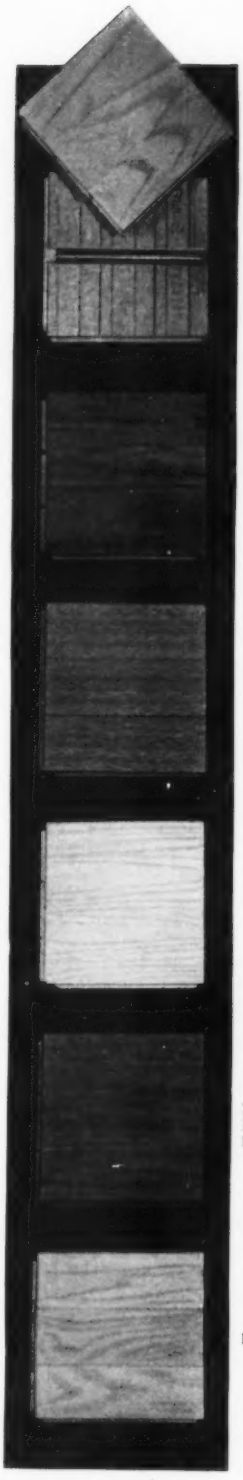
Doctor Brumbaugh served a term as governor of Pennsylvania, being elected in 1914. He was also the first commissioner of education in Porto Rico, having been honored with that post by President McKinley in 1900. Among the positions held by Doctor Brumbaugh were: superintendent of schools, Huntingdon County, Pa.; professor of natural sciences, Juniata College, Huntingdon, Pa., his alma mater; professor of pedagogy, University of Pennsylvania; superintendent of schools, Philadelphia; instructor in Bates College, Lewiston, Maine; lecturer for the National Physical Education Association; president of Juniata College, which position he held at his death. He was also a writer of note.

Married Women May Not Teach in Somerville Schools

As the result of a ruling made by the school committee at a recent business meeting, married women will in the future be barred from teaching in the schools of Somerville, Mass. No teacher employed in the school at the present time will be affected, however, the *Journal of Education* states.

VARIETY

in hardwood floors, now practical for all types of structures, through unit block construction



OAK

back, showing splins

WALNUT

LIGHT PHILIPPINE MAHOGANY

MAPLE

DARK PHILIPPINE MAHOGANY

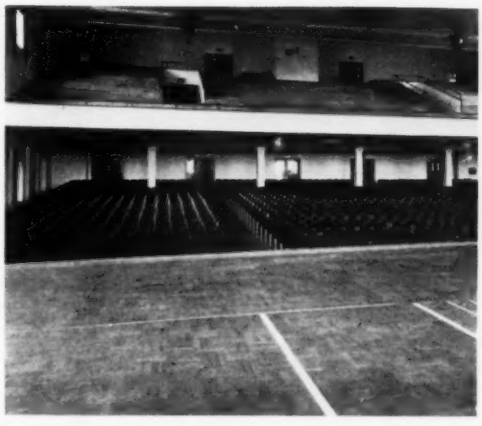
BEECH

*CELL*ized* Wood Floor Blocks are available in sizes ranging from 6¾ to 13 inch squares, and in rectangles for basket weave, herringbone and other patterns in two sizes: 6" x 12" and 6¾" x 13½". Each block is a complete unit of 3 or more 13-16" flooring strips in oak, walnut, light and dark Philippine mahogany, maple and beech.

Walnut blocks, with slightly beveled edge, laid over old wood floor in office of W. B. McMillan & Co. by Kaucher Engineering Co. of Chicago.

MAPLE and BEECH blocks, factory-sanded, and then chemically treated, are used without further finishing in schools. Sanding and finishing costs are thus eliminated, and a very material saving results. This improved product meets every requirement a school floor should possess: it is durable, supporting constant heavy use, with ease and noiselessness under foot; inexpensive in both original and upkeep costs. The unit block is rapidly laid, and the floor economically maintained.

Laid directly over concrete in EVERBOND, *a plastic cement, providing a sound-deadening, resilient base.*



40,000 sq. feet *CELL*ized Oak blocks laid in North Little Rock High School. Architects: Mann, Wagner & King, Little Rock, Ark.*

*CELL*ized* wood floor blocks are guaranteed by *CELL*ized* Oak Flooring Inc. Laid only by Licensed Flooring Contractors. The names of those licensed to use this label in your locality will be supplied upon request.

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*CELL*ized* by a chemical treat, to reduce the tendency to change in size. Insect and decay resistant.

*CELLized Oak Flooring Inc.

MEMPHIS — TENNESSEE

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3 Simple Colors

Yet with them you can cut your cleaning costs in half!

How much was your cleaning material bill last month? No matter the amount, of course you would like to cut it in half. You can, easily—through the use of Soilax, the patented waste-proof cleaning material.

Soilax is a pink powder. When used in correct proportions, a green solution results. But when too much is used, the solution *automatically turns yellow*, as illustrated above. These simple color signals raise an effective barrier against waste.

A few minutes time will instruct your employees in the correct use of Soilax, how the color signals will guide them. After that, your cleaning material bill will take a decided slump downward—ranging from 25 to 50 per cent.

In order to prove this saving to you, we have inaugurated the "Soilax Comparison Test."

We want to prove to you the Soilax cost cutting in your own establishment. We want you to try Soilax and discover its superior cleaning action as well as its economy for cleaning of all types. The coupon below prints in detail our offer to prove that Soilax will give you better cleaning at a saving of 25 to 50 per cent—*at no cost or obligation unless we do prove it.*

Send the coupon now—test this cleaning material which has met with the approval of such hotels as the Statler, Boston and Detroit; such restaurants as George Stoughton's Eat Shops, Saint Paul and Minneapolis; such hospitals as Glen Lake Sanatorium, Minneapolis. It will mark the day on which you started to increase your profits through the elimination of waste in one of the most wasteful departments of maintenance. Clip the coupon now—get started today.

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Please send us Soilax as checked with this understanding:

1. If we are not convinced at the end of 30 days' trial that Soilax is rendering us a superior cleaning result at a saving of 25 to 50 per cent in our present cleaning material bill, or if we in any way feel that Soilax is not all you claim for it, the demonstration is not to cost us a cent. In these points, we are to be the sole judge. 2. If we are convinced that your claims are justified, we will remit to you the cost of the Soilax according to the prices below.

☐ 125-lb. drum — 13c a lb. ☐ 325-lb. bbl. — 12c a lb. *F. O. B. Chicago or nearest warehouse.*

Firm..... By.....

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Administration Building, State Teachers College, San Diego, Calif. George B. McDougall, State Architect.

A pound of dirt—

Tracked in on muddy or dusty days—from nobody knows where—every day every school in the country receives its grist of dirt and dust.

Hand methods will not remove it all—in fact on test it has been proved that the *Spencer Central Cleaning System* will remove a pound more of dirt than hand methods in the small space of four rooms.

In other words, the Spencer System removed 171 per cent as much dirt as the brush.

The Spencer System is not expensive when the health of the children and its low operating cost are considered. It can be installed in any school—old or new, large or small. We would like an opportunity to present you or your architect with some of the facts.

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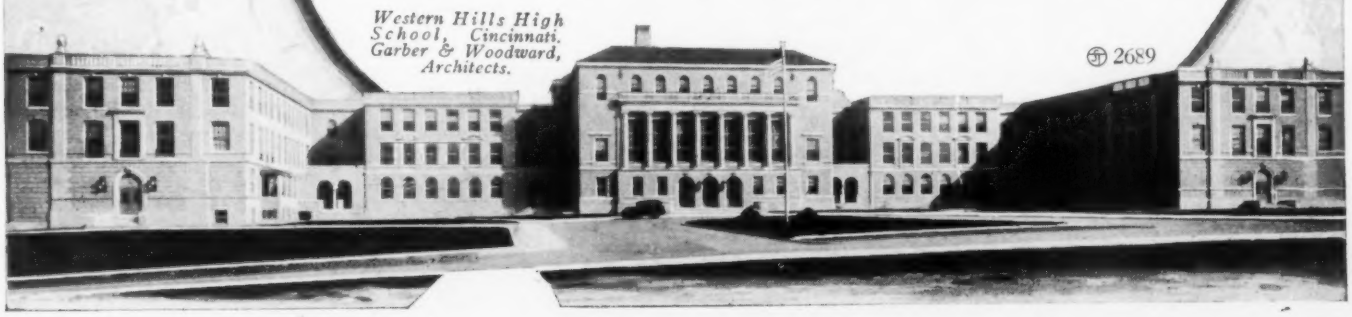
Western Hills High School, Cincinnati. Garber & Woodward, Architects.



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News of the Month

Committee Studies Way to Improve Health of School Child

The problem of improving the health of the nation's school children was considered at a recent meeting of the committee on the school child, a group of forty outstanding experts comprising a part of the White House Conference on Child Health and Protection.

Attention was given to the responsibility of the school system in emphasizing health as an aim of education. The committee, of which Dr. Thomas D. Wood, professor of health education, Teachers College, Columbia University, is chairman, is a part of the group of 700 specialists who will spend a year in study and preparation for the conference at the White House in November.

Dr. Ray Lyman Wilbur, who is chairman of the conference, addressed the meeting.

Among the phases of school child health that were taken up by the committee were the sanitary school plant, health procedure with the child, health examinations, health education, physical education and cooperation between the home and the school.

Definitely outlined reports were given by the chairmen of the subcommittees. These reports dealt not only with forms of service and education and training required for public school children but with the health service and health education of private schools, parochial schools, Indian schools, Negro schools and schools in the territories of Porto Rico, Hawaii, the Philippines and Alaska.

Vital Values in Education Theme of N. E. A. Columbus Meeting

The National Education Association will hold its summer meeting at Columbus, Ohio, from June 28 to July 4. "Vital Values in Education" with special emphasis on the international point of view has been chosen as the leading topic for the meeting, and E. Ruth Pyrtle, the president, is building up an interesting program.

Law Observance Commission Reports on High Schools

In response to the many requests that have come for information about the activities on law observance, Secretary J. W. Crabtree of the National Education Association recently issued the following statement:

At the request of President Hoover's Commission on Law Observance and Enforcement the National Education Association arranged to cooperate with its plan to get facts that would show behavior conditions in the high schools of the country, comparing 1930 with 1920. It will be some time before this work will be completed but enough reports have come in to show that conditions in the high schools are much better than they were in 1920, with respect both to drinking and to general behavior. This is doubly significant in view of the fact that high school enrollment has grown since 1920 from two million to more than five million pupils—an occurrence unparalleled in any country or in all history. Many of the three million additional pupils who have sought a high school education within the decade have come from poorer homes where in former times drinking was a heavy burden on the family income. Unquestionably the Eighteenth Amendment has benefited the schools beyond measure.

President Hoover's Commission on Law Observance and Enforcement is composed of citizens of outstanding ability and of the highest ideals. It has the confidence of the people of this country and is to be congratulated upon its efforts to get the facts.

Paris Institutes New System for Recording Pupils' Health

In order to preserve a record of the growth of each child and to subject school pupils to a regular medical supervision, the *Académie de Paris* introduced at the beginning of the January term the system of individual health record books for school children.

According to an investigation carried out by Dr. Chaillet-Bert, *chargé de cours, Faculté de Médicine de Paris*, it appeared that regular medical supervision resulted in a decrease of from 75 to 80 per cent in the number of failures to pass.

According to a foreign letter appearing in the *Journal of the American Medical Association*, the book is made up as follows: The first page is reserved for a description of the vaccinations to which the child has been subjected; the second page is for the family physician's record of previous diseases and the general condition and growth of the child. Pages 4 and 5 are reserved for the reports of the medical examinations to which the child will be subjected. Examinations of the eyes, the teeth and hearing will be recommended. The results of these examinations will guide the school physician in prescribing the amount and nature of the physical training needed; in specifying what organs must be spared; what corrective exercises are needed and finally in recommending or prohibiting sports.

The double purpose of this health record book is to assure a systematic supervision of physical training and eliminate overdoing in physical activities. At the same time it will keep the family physician informed of discovered defects so that he can exercise correct surveillance during the vacation periods.

Florida County Wins Nutrition Cup for Third Time

Dade County, Florida, has won for the third successive time the Nutrition Cup awarded by the National Tuberculosis Association to the school unit having a population of not less than 10,000 and doing the most effective work for the undernourished child.

The cup was presented at a meeting of the Board of Directors of the Florida Public Health Association held at Jacksonville.

Let Conn Organize Your School Band

Nicholas Senn High School Band, Chicago, 1929 Class A National Champions. Captain A. R. Gish, director. The great majority of instruments used in this band are Conns and Captain Gish is an enthusiastic endorser of Conn instruments.

YOU may be sure of a successful school band if it is organized in co-operation with Conn. You know that you can depend on any plan sponsored by Conn, the world's largest manufacturer of band instruments, established for more than fifty years as the unchallenged leader in the band field.

Conn has helped to organize and develop hundreds of school bands, large and small, in all parts of the country — under all sorts of conditions. From this experience has been perfected a plan which you will find exactly fits the requirements of *your* school.

Ready for Concert in 60 to 90 Days

Starting with beginners it is easily possible to have a real, playing band in 60 to 90 days. Many give creditable concerts within that time. Factory organizers handle all details for you including organizing, instruction and even financing of equipment needed. You'll be surprised how easy it is to organize a successful band this way.

Full Information Without Obligation

Please feel free to write us fully regarding any band organizing or maintenance problem. Our complete service is available to you without obligation. Write for expert advice on any band subject or merely mail the coupon for full information and free book, "Band Organizing Made Easy."

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Without obligation please send me full details of your band organizing plan for public schools.

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In the Educational Field

J. W. MURPHY, Great Bend, Kan., has been reelected superintendent of schools for another two-year term.

J. C. FRAZEE has resigned as superintendent of schools at Hays, Kan., and as a member of the faculty of the Kansas State Teachers College at Hays.

LAURA I. CARLEY has been appointed county superintendent of Osage County, Kan., to take the place of ANNA DANIEL, who died on January 19.

J. R. POPKINS has been reelected superintendent of schools at Caney, Kan., for another two years.

FLORENCE E. BAMBERGER, formerly assistant superintendent of the public schools of Baltimore, has been chosen as director of education at Johns Hopkins University, to succeed the late DR. EDWARD F. BUCHNER.

A. J. MATHEWS, for many years president of the State Teachers College, Tempe, Ariz., will become president emeritus on July 1. RALPH W. SWETMAN, president, Humboldt State Teachers College, Arcata, Calif., will succeed DOCTOR MATHEWS.

CORA WILSON STEWART, who has done so much to eliminate illiteracy in Kentucky and other Southern states, was awarded the Ella Flagg Young Medal for distinguished service to education at the Department of Superintendence meeting at Atlantic City in February. The National Council of Administrative Women in Education awarded the medal.

DR. ROBERT R. MOTON, principal of Tuskegee Institute, Tuskegee, Ala., has been appointed by PRESIDENT HOOVER to make a survey of the educational needs of the people of Haiti. DR. MORDECAI JOHNSON, president, Howard University, Washington, D. C., PROF. LEO M. FAVROT, field secretary of the General Education Board, and DR. W. T. B. WILLIAMS, dean, Tuskegee Institute, will accompany DOCTOR MOTON.

D. L. PAISLEY, secretary of the board of trustees of the Arkansas Education Association, has resigned as superintendent of schools at Hope, Ark., a position he has held for fourteen years.

JAMES T. PRESTON, for many years principal of the Burbank Junior High School, Berkeley, Calif., died recently.

KARL F. ADAMS, city superintendent of schools of Santa Cruz, Calif., died recently.

FRANKLIN H. THOMPSON, science and music instructor in the consolidated school of Newhall, Iowa, has been elected superintendent of the schools of Newhall for the coming year.

MARY BOYD, principal of the high school of Luther, Iowa, has been selected as county superintendent to succeed GLOVA MCCALL.

E. A. SPARLING has been reelected superintendent of schools at Muscatine, Iowa.

HALLECK LEFFERTS has been appointed headmaster of the Pomfret School, Pomfret, Conn., succeeding the late DR. WILLIAM BEACH OLMSTEAD, who had been head of the school for thirty-five years.

DR. ANDREW W. WILSON, aged sixty-six, founder and president of Kiskiminetas Springs School, Saltsburg, Pa., died on March 4, at his home on the campus of the school.

The REV. JOHN MONCURE, president of the Maryland College for Women, Lutherville, Md., died recently in Baltimore.

GEORGE FLOYD has been selected as superintendent of schools at Alabama City, Ala. MR. FLOYD was formerly a teacher in the Birmingham schools.

MRS. JAMES H. MCCOY has resigned as president of Athens College, Athens, Ala.

W. W. STANCIL, superintendent, Winder public schools, Winder, Ga., has been elected superintendent of the public schools of Fitzgerald, Ga. MR. STANCIL fills the vacancy left by the resignation of G. E. USHER who has served as superintendent of the Fitzgerald schools for the last five years.

CLARK W. BROWN has been reelected superintendent of schools at Clinton, Iowa.

CHARLES G. HOYT, superintendent of the Middlesex Training School for Boys, North Chelmsford, Mass., and his wife, who is matron, have resigned. MR. and MRS. J. EARL WOOTEN will take their place.

F. J. STAMPER, superintendent of schools of Hull, Iowa, died recently.

J. G. RAGSDALE has been named superintendent of schools of Butte, Mont. MR. RAGSDALE, who has been principal of the Butte High School for the last six years, succeeds A. H. DOUGLASS, resigned.

C. H. BASS, principal of the Shady Grove Consolidated School, Hazlehurst, Miss., has resigned. He has been succeeded by J. W. GRAY.

H. W. GOODRICH has resigned as principal of the South Dayton, N. Y., high school to accept a similar position in Brocton.

DR. R. O. STOOPS, superintendent, York City Schools, York, Pa., has resigned.

LOUIS F. HACKEMAN has been elected dean of Lenoir-Rhyne College, Hickory, N. C.

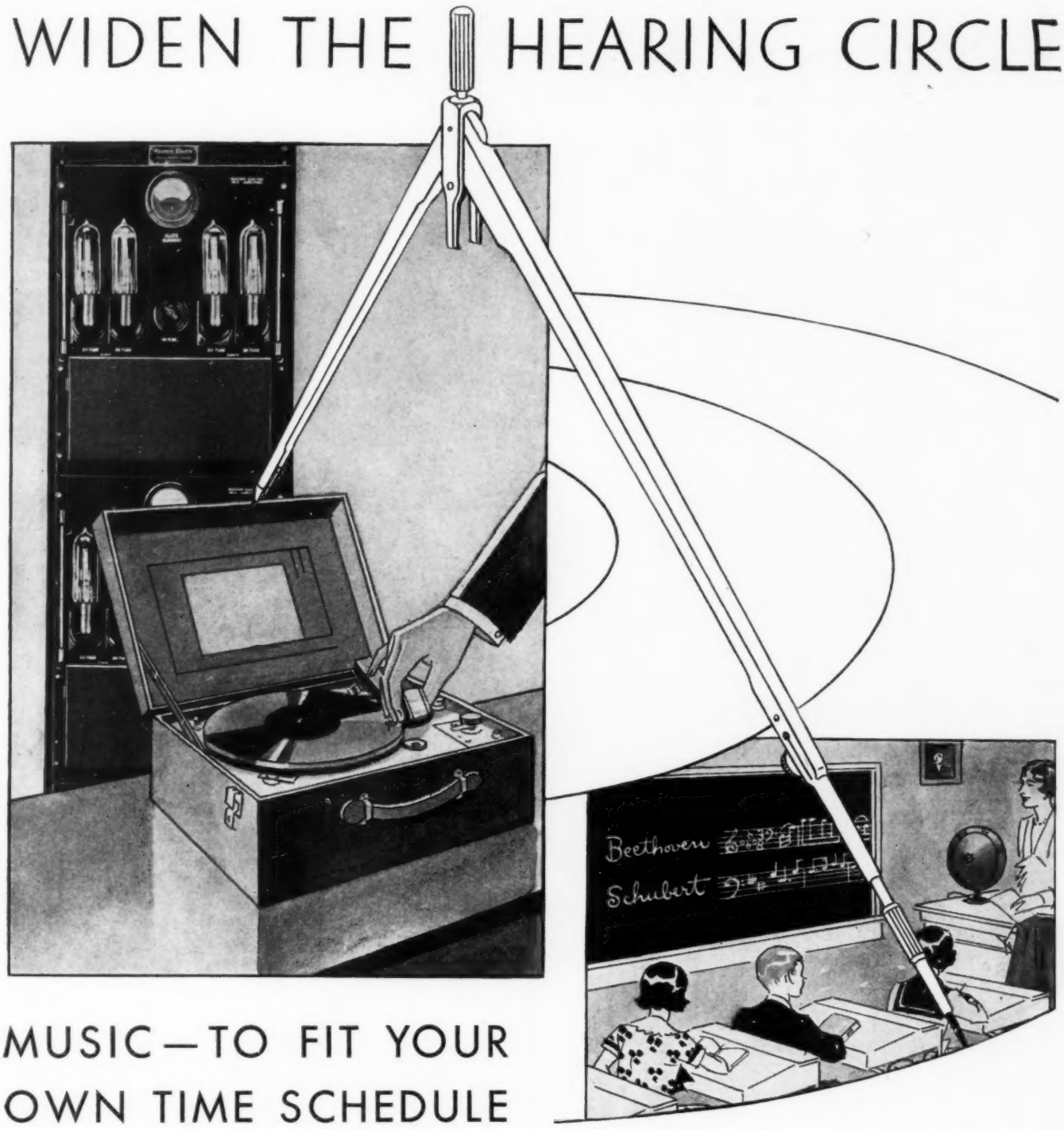
ROSCOE V. SHORES, for the last two years, personal assistant to George Melcher, superintendent of schools, Kansas City, Mo., has been appointed assistant superintendent. He succeeds the late J. H. MARKLEY.

JOHN S. CARROLL, superintendent of schools of Fayette County, Pennsylvania, has resigned.

E. W. EDWARDS, superintendent of schools of Gallia County, Ohio, has been reelected for a term of three years.

HARRY E. ODGERS, superintendent of the school district of Parkersburg, W. Va., since 1918, will become superintendent of the independent school district of Fairmont, W. Va., on June 30. MR. ODGERS will succeed O. G. WILSON, who has resigned.

WIDEN THE HEARING CIRCLE



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Now you can bring your students the music you want them to hear—at the time you want them to hear it. You can send it from a single source to any desired number of classrooms. Music appreciation courses can be fitted to your own time schedule—when you use the Western Electric Music Reproduction System.

This apparatus plays any standard laterally-cut phonograph record—which means that a vast storehouse of classics is available to you. The equipment amplifies the music in rich full tones and distributes it throughout the building.

This equipment is made by the makers of your telephone. For further data, write the distributors, Graybar Electric Company, Graybar Building, New York, N. Y. Offices in 76 principal cities.

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In the May Issue

A number of vital papers will appear in the next issue of The NATION'S SCHOOLS. E. C. Browne writes on some important considerations in the professional training of school executives. Dr. David Snedden discusses changing administrative conditions in vocational education. George B. Ford describes schools and play yards. John Louis Horn tells of education through travel. William G. Carr defines recent legislation affecting teachers. These are but a few of many interesting articles—all of profit to school executives.

The new Washington High School, Lorain, Ohio, painted throughout with Barreled Sunlight.

Their Business Manager chose interior paint in a *businesslike way*

THE Board of Education at Lorain, Ohio, had a new high school to paint. So they secured samples of eight "standard makes" of interior paint. Tested them. And chose Barreled Sunlight.

"Tests were made," they say, "for hiding qualities, covering power and ease of application."

True enough, Barreled Sunlight does spread over a larger area, has greater hiding power, is easy to apply. But, in the opinion of many users, that's a secondary consideration.

Marked resistance to dirt . . . a high degree of light reflection . . . ease of washing . . . these are the characteristics that explain Barreled Sunlight's widespread popularity.

U. S. Gutta Percha Paint Co., Providence, R. I. Branches or distributors in all principal cities. (For the Pacific Coast, W. P. Fuller & Co.)

BOARD OF EDUCATION
BUSINESS DEPARTMENT
LORAIN, OHIO

W. A. PILLANS
BUSINESS MANAGER

REPLYING TO

SUBJECT

DATE November 15, 1929

U. S. Gutta Percha Paint Co.
Providence, R. I.

Gentlemen:

After testing eight standard makes of interior wall paint, we chose Barreled Sunlight for our High School.

Tests were made for hiding qualities, covering capacity and ease of application.

We are highly pleased with the results obtained.

Very truly yours

W A Pillans.

Business Manager

WAP:MP

Barreled Sunlight

Reg. U. S. Pat. Off.

Easy to Tint

Any desired shade is obtained by simply mixing ordinary colors in oil with Barreled Sunlight white. Quantities of five gallons or over are tinted to order at the factory without extra charge.

U. S. GUTTA PERCHA PAINT CO.
47-D Dudley Street, Providence, R. I.

Please send us further information and a panel painted with Barreled Sunlight. We are interested in the finish checked here.

Gloss ☐ Semi-Gloss ☐ Flat ☐

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NEW McCRAY REFRIGERATORS . . . . . Backed by 40 Years' Experience

THE new series of McCray refrigerators, with gleaming all-porcelain interior and exterior, embody 40 years' experience in building the highest grade refrigerators for all purposes.

You realize how vital this experience is when you consider how much more there is in refrigerator building than appears on the surface. For, important as the exterior and interior are from the standpoint of fine appearance and sanitation, it is what lies between—in the wall construction that determines the efficiency and service of the refrigerator.

Every McCray is heavily insulated with pure corkboard, sealed with hydrolene cement, making perfectly air-tight joints. In every hidden detail the finest materials, and the most expert craftsmanship build staunchness into the McCray —the ability to resist heat, and retain cold.

It is this in-built quality which insures the efficient economical service always associated with the name McCray. Like the sterling mark on silver, the McCray nameplate has come to be recognized during these two-score years of quality manufacture, as the assurance of thorough-going value.

Whether used with ice or mechanical refrigeration of any type, the McCray delivers the same efficient service. And it should be remembered, too, that the character of service you get depends finally upon the refrigerator itself, regardless of the cooling method used.

The McCray illustrated is the Model No. P332, one of a series of new All-Porcelain refrigerators for Schools, Institutions, Hospitals, Hotels, Restaurants—in fact wherever perishables must be kept in large quantities.

ALL McCRAY MODELS MAY BE USED WITH MECHANICAL REFRIGERATION OF ANY TYPE

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McCray Refrigerator Sales Corporation, 73 Lake St., Kendallville, Ind.
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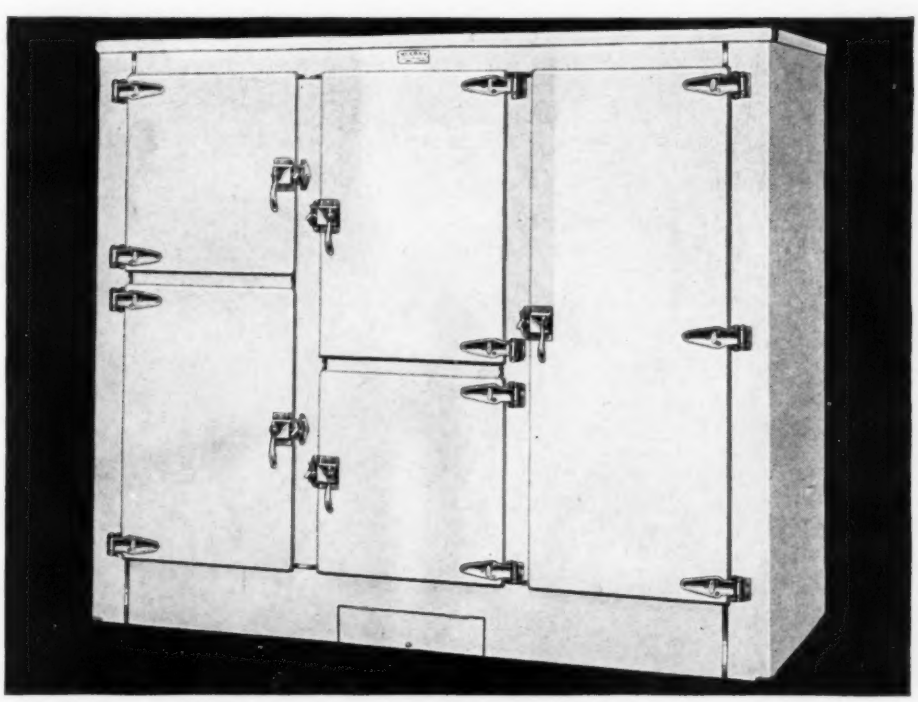

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New development now a necessary feature of modern school construction

THE perfection of two forms of RCA Centralized Radio solves the problem of unsightly individual antennae and lead-in wires and facilitates the effective educational use of radio. Equipment is readily installed and avoids future wiring costs necessary for adequate radio facilities.

Two principal forms, fully standardized and specially designed in every detail by RCA engineers, meet every need: (1) A distribution system for antennae serving groups of 80 receivers; (2) Centralized equipment to distribute broadcast entertainment to as many as 5000 rooms. The second method is, of course, particularly adapted to schools as well as to hotels, hospitals, ships and buildings housing transients. Both types are readily installed, very simple, efficient and flexible.

The following features will be of interest as indicating the care with which RCA has worked out the radio problem facing architects and building owners. Plans and estimates will be gladly submitted for installations of any size:

1. Self-regulating output transformer, automatically compensating for variations in load.
2. *No batteries required*—line power operation throughout.
3. *Receiver Panel*—centrally and conveniently located for tuning. Specially designed receiver chassis, and receiver, properly shielded, easy manipulation, wide range of tuning, fool-proof, local as well as remote volume control, easily accessible for changing tubes, etc., metal cover, dust-proof, but properly ventilated. Uni-control receiver with push-pull audio stage.
4. *Monitoring Loudspeaker*—the operator can at all times check fidelity of signal at all remote points of the installation by the simple expedient of plugging in at jacks which are properly marked.
5. "Sectional bookcase" method of multiple-unit assembly on the rack, providing convenient access to parts; interchangeability and provision for mounting additional units.
6. Space provided for addition of amplifier and load distribution panel assemblies to meet requirements of large installations or growth of existing installations.
7. *Special portable electric phonograph unit* is available as an accessory.
8. *All distribution wiring* on panel in accordance with standard telephone practice.
9. *Approved* under Fire Underwriters' regulations.
10. *Minimum of floor space* required, space efficiently utilized.

Let us send you descriptive pamphlets and answer your questions. Please address the

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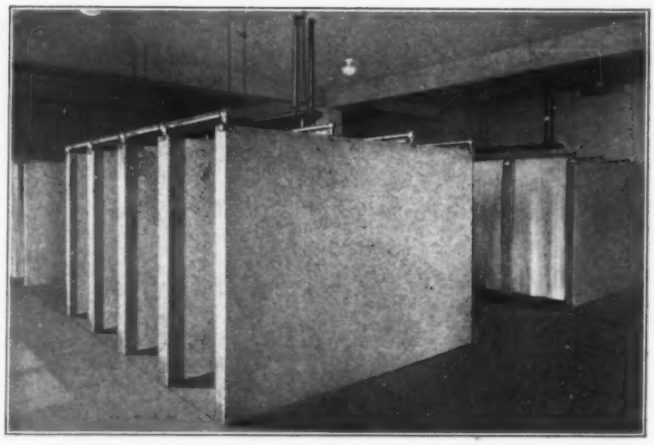

Sanitary, Economical Shower Compartments

The major requirement for both shower compartments and toilet partitions is absolute sanitation and cleanliness. Alberene Stone because of its close-grained density, is practically non-absorbent, assuring not only ease of cleaning and sanitation but long life. Being highly resistant to acids and alkalis, this Virginia soapstone can be said to be non-staining. Its use provides floors that are non-slipping—wet or dry. The natural light blue-grey color is pleasing and harmonious.

These qualities plus the structural soundness of Alberene compartments make for permanence and economy because there is no expense for upkeep or repairs.

Complete data and specifications are contained in our Bulletin which will be sent gladly on request.

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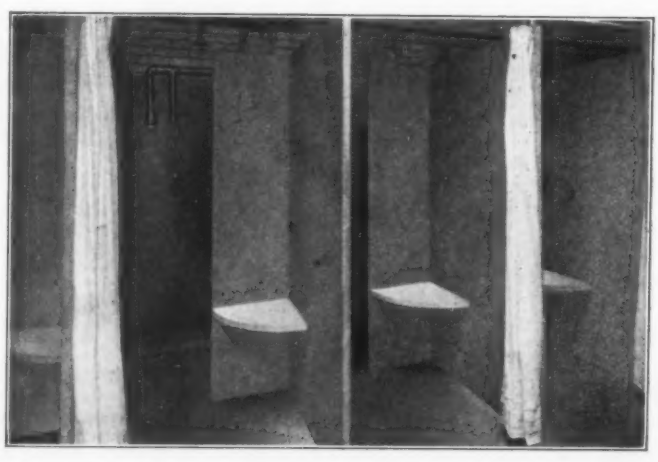
Quarries and Mills at Schuyler, Virginia

ALBERENE STONE



Banana Fruit Salad—delicious and wholesome

How many children in your school

are underweight... and have unsound teeth?

This Wall Card helps children choose proper foods. Write for free copy.

"America is Dining Out" contains new uses for bananas. The coupon brings it.

IN the average school one child out of every four is underweight. An even greater number have unsound teeth.

These appalling facts place a plain duty before teachers and cafeteria directors in suggesting proper foods to overcome these serious drawbacks.

That delicious ripe bananas are important in fighting both undernourishment and bad teeth has been proved by outstanding authorities.

The results attained in feeding three hundred undernourished children in Lowell, Mass., were recently published in the American Journal of Public Health. In this report, the school physician, Dr. J. J. McNamara, states:

> "Milk and bananas were chosen as a supplementary lunch . . . because they furnish a complete food when used together . . . also because the ripe banana is palatable and easily digested and assimilated. The combination also contains adequate amounts of vitamins A, B and C and the essential mineral salts."

The value of Vitamin C in the application of dietary measures to tooth health was pointed out by Doctor W. H. Eddy, of Columbia University, at the last annual meeting of the American Public Health Association. The banana is recognized by Doctor Eddy and other leading scientists as a good source of this vitamin.

Free Health Aids . . . Clip the coupon now for these three featured offers—the McNamara report, "America is Dining Out" and the popular Wall Card which so many teachers and school cafeteria directors are using.

The coupon will bring this valuable material at once.

UNITED FRUIT COMPANY, N.S. 4-30
1 Federal Street, Boston, Mass.

Please send the Banana and Milk Wall Card, "America is Dining Out," and Dr. J. J. McNamara's report.

Name_____

Address_____

City_____ State_____

The laboratory drains in any school are a potential danger point unless engineered to be corrosion-proof.

THE merit of Duriron sums up in that the *pipe itself* is good for the life of the building, and that the *calked joints* are as permanently leak proof. There are cheaper materials, but experience points to the danger of false economy where corrosive waste liquids from a leaky drain line can be so destructive.

Your architect or plumbing expert will confirm these facts. For catalog information address The Duriron Company, Dayton, Ohio.

DURIRON ACID AND ALKALI PROOF DRAIN-PIPE

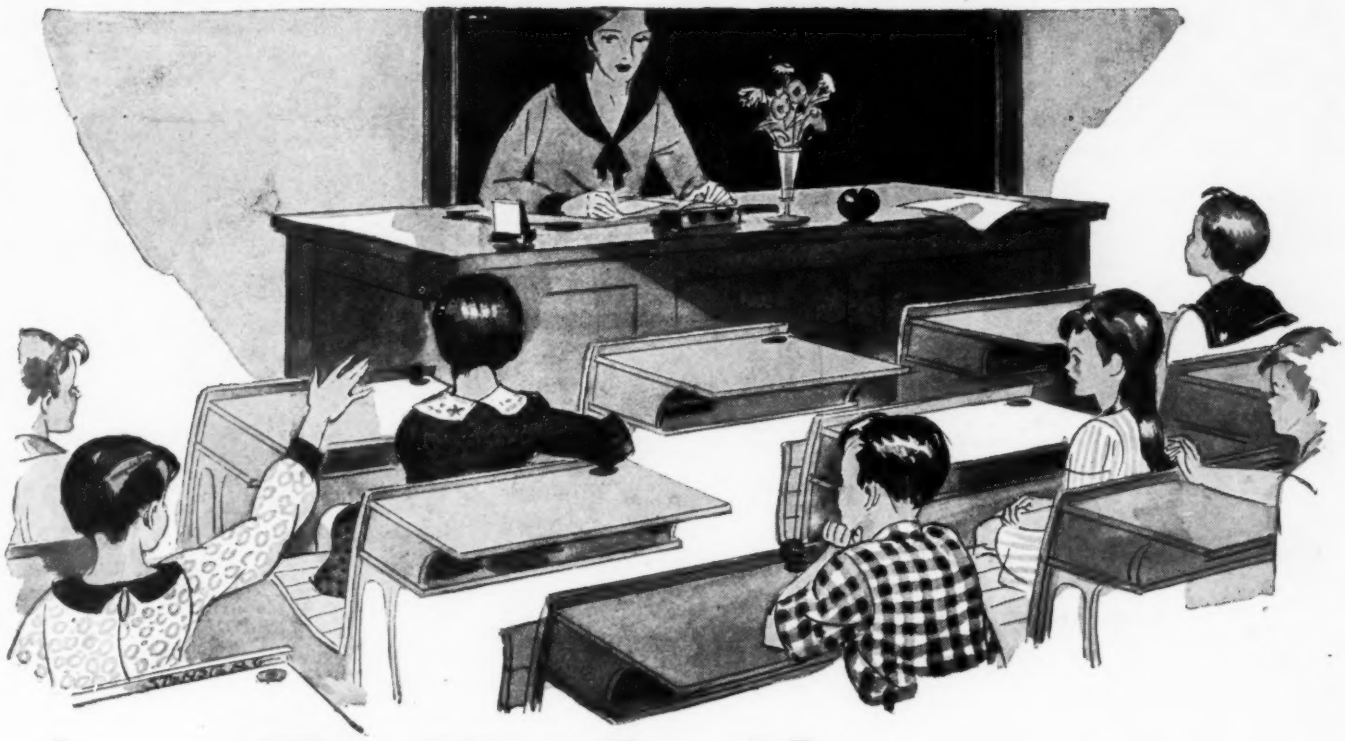
D-26A

The Daily Microbe

THE war against unsanitary conditions in our schools goes on. Every linoleum installation scores a victory for sanitation and health. Every yard of linoleum laid swells the casuality lists of disease-spreading, germ-breeding microbes · Microbes haven't a chance of survival in schools whose floors are covered with linoleum. Completely covering the floor, linoleum wipes out the microbes' hiding places and forces them to move elsewhere · W. & J. Sloane Linoleum is specially effective against microbes. Extra grinding of ingredients plus 32% extra pressure in the calender rolls gives W. & J. Sloane Linoleum a uniform texture without cracks and crevices. Double-waxing at the plant adds a super-smooth finish, making it possible to use the linoleum as soon as laid · School officers and members of school boards will find in our comprehensive book: "Linoleum—What It Is—How It Is Made in the W. & J. Sloane Plant" many other reasons—sanitary, economic and decorative—for using W. & J. Sloane Linoleum. We will gladly send you a copy on request. W. & J. Sloane Mfg. Co., Trenton, New Jersey.

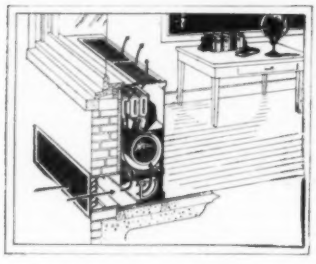
This book will show you why floors of W. & J. Sloane Linoleum are sanitary and economical. Write for free copy. Address Advertising Department, W. & J. Sloane, 577 Fifth Avenue, New York City.

W. & J. SLOANE LINOLEUM



At Roll Call

— — — how many seats are empty?



DRAFTY schoolrooms . . . warm one minute and cool the next . . . are fertile breeding places for colds.

Modern schoolrooms are being made SAFE . . . both as to temperature and freedom from draft . . . by Sturtevant Unit Heater-Ventilators. These units draw in outdoor air . . . filter it clean of dust and impurities . . . temper it just to the right degree . . . then pass it gently into the room. Operation is QUIET. Control is simple . . . automatic or manual, as you wish.

Investigate the advantages enjoyed by schools equipped with Sturtevant Unit Heater-Ventilators. Many installations are shown in Catalog 361 . . . a book that should be familiar to school officials, architects and engineers. A copy? For the asking . . . from our nearest office.

B. F. STURTEVANT COMPANY

Plants and Offices at: Berkeley, Cal. ◥ Camden, N. J. ◥ Framingham, Mass. Galt, Ontario ◥ Hyde Park, Mass. ◥ Sturtevant, Wis.

Branch Offices at: Atlanta; Boston; Buffalo; Camden; Charlotte; Chicago; Cincinnati; Cleveland; Dallas; Denver; Detroit; Hartford; Indianapolis; Kansas City; Los Angeles; Milwaukee; Minneapolis; Newark; New York; Omaha; Pittsburgh; Portland; Rochester; St. Louis; San Francisco; Seattle; Washington, D. C. ◥ *Canadian Offices at:* Toronto; Montreal and Galt. ◥ *Canadian Representative:* Kipp Kelly, Ltd., Winnipeg.

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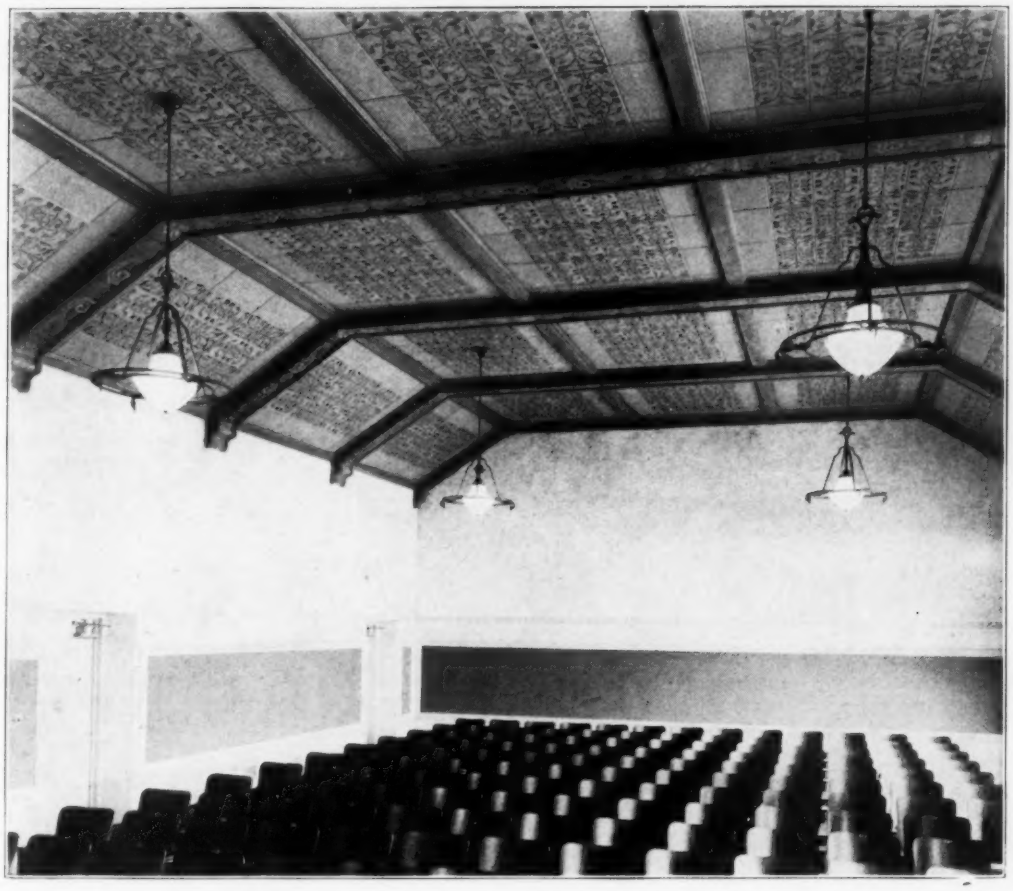
Sturtevant Reg. U. S. Pat. Off. *the Silent* **Unit Heater-Ventilator**

SUPPLIES OUTDOOR AIR ~ FILTERED CLEAN ~ AND TEMPERED



Acousti-Celotex in the classroom ceilings of the Beverly Hills High School, Beverly Hills, Cal., subdues noise and provides ideal conditions for lecturing and study. Note the attractive decorative effect.

Subdue *disturbing* school-room noise with Acousti-Celotex

SCHOOLS and colleges everywhere are learning that it is no longer necessary to put up with noisy school rooms.

They have discovered that Acousti-Celotex applied to the ceilings will quickly absorb noisy reverberations . . . change blurred sounds into clear, distinct words . . . increase the pleasure of listening to school lectures and meetings.

Students in these schools do better work because Acousti-Celotex subdues disturbing classroom sounds—quiets the racket in corridors and manual training rooms.

Quickly applied

Acousti-Celotex comes in single, complete units, decorative and permanent, which are easily applied to the ceilings in old or new buildings. No remodeling is necessary—no school time need be lost—when Acousti-Celotex is installed.

The natural color of Acousti-Celotex is a pleasing buff, but it can be painted and repainted, *even with lead and oil paints,* without loss of acoustical efficiency.

Mail the coupon below for our new folder "Better Study Conditions in Schools" explaining further about this remarkable material.

THE CELOTEX COMPANY
919 North Michigan Avenue
Chicago, Illinois

In Canada: **Alexander Murray & Co., Ltd., Montreal**

Sales distributors throughout the world.

Acousti-Celotex is sold and installed by approved Acousti-Celotex contractors

The word
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ACOUSTI—CELOTEX
FOR LESS NOISE---BETTER HEARING

THE CELOTEX COMPANY, N.S. 4-30
919 N. Michigan Avenue, Chicago, Illinois.

Gentlemen: Please send me your interesting new folder, "Better Study Conditions in Schools."

Name .....

Address .....

City ..... State.....

Like a walking camera

The minds of children are as sensitive to impressions as a photographic film. The character of their environment has profound influence upon their developing habits and attitudes. And cleanliness—which begins with clean floors—is one of the most vital factors in this influence. When schoolroom floors have the same immaculate appearance as the floors at home, boys and girls respond with a similar attitude of respect. In their attitude toward neatness in the rooms, in their personal appearance, and in their general habits, are implanted elements that become enduring possessions of character.

Hundreds of schools throughout the land have found the FINNELL Electric Floor Machine a great aid in maintaining the sort of floors a school should have. Grime-covered floors, oily, greasy floors, floors with varnish discolored, wax worn off, or surface scratched, respond to regular upkeep with the FINNELL. This multiple-unit system of scrubbing, waxing and polishing, gives floors of every type and description a new lustrous finish.

The FINNELL SYSTEM is a complete system—not just a machine. There are eight different models of the FINNELL Scrubber-Polisher—one to suit your needs exactly. The size of your building, the floor area, the floor type—all have a bearing on the size you should use. FINNELL is the one system giving you so wide a range.

An eastern city uses thirteen FINNELL Floor Machines to care for the floors in its twenty-eight public schools. The machines scrub wood, concrete and tile floors, and wax linoleum floors. "Hand scrubbing would require at least three times as long. The FINNELL Machines keep the twenty-eight buildings far cleaner than ever before, and release janitors for more important work."

Now available in the FINNELL SYSTEM is the Electric Vacuum Mopper, which picks up the dirty water from the floor, then rinses the floor with clean water, picking it up immediately, and leaving the floor dry as well as clean.

The smallest Finnell Scrubber - Polisher. Light, compact, easy to handle. Ideal for polishing small or crowded areas.

INVESTIGATE NOW

A FINNELL representative will be glad to make a survey of your floor space and recommend which of the eight FINNELL models would best serve your needs. This service will cost you nothing whatever and put you under no obligation. Address FINNELL SYSTEM, INC., 1504 East Street, Elkhart, Indiana. District offices in all principal cities of the United States and Canada.

FINNELL

ELECTRIC FLOOR SCRUBBER-POLISHER

IT WAXES - IT POLISHES - IT FINISHES - IT SCRUBS

Behind the wall lies real economy

To the inviting appearance and mechanical perfection of this Ipswich *lavatory, C598—88, the certainty of dependable operation is added when it is installed with Crane piping materials.*

Plan as elaborate a washroom as you will—employ the finest sanitary engineer to lay it out—let the best plumbing contractor install it . . . unless your piping materials are thoroughly dependable, your efforts are unavailing.

For it is behind the wall and under the floor that the real value of a plumbing installation is determined. Unless the fittings are proof against leaks, unless the valves perform their duties unerringly, sanitation is endangered, maintenance is increased, and an expensive repair job is threatened.

Realizing this, Crane Co. has built its complete line of plumbing materials logically. Starting with valves and fittings 75 years ago, it perfected them to a point where they were absolutely dependable before it placed any fixtures on the market.

The wisdom of this policy has been proved by the experience of thousands of schools the world over, who have kept costs down, and efficiency up by seeing to it that their piping materials as well as fixtures were of Crane quality.

Valves CRANE *Fittings*

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